The Boston Medical and Surgical Journal

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Address.

SOME PROBLEMS OF READJUSTMENT IN MEDICAL PRACTICE.[*]

BY W. B. CANNON, M.D., BOSTON.

It is altogether natural that the professionally trained person should find his chief satisfaction in the exercise of those functions which have been specially disciplined and prepared for a particular service. During the late war the medical officers assigned to an administrative job or given "paper work" to attend to were inclined to resent it or were impatient under it—they had had experience as physicians and surgeons and were eager to show their skill in the performance of professional tasks. And so it is with us in our relations to the people whom we serve. Ordinarily we feel that we are showing to a satisfactory degree our usefulness to society if we as members of the medical profession do our duty in caring for the sick.

Good reasons can be found for feeling a satisfaction in this attitude. The sick are in need, often in sore need, of what we have to give them. And there is much comfort not only for them but also for us in the beneficent results of intelligent medical and surgical care. The intimate personal relations between doctor and patient have a sanctity and a grace which bring forth the rarest fruits of friendship. That, it is argued, is the natural work for us physicians, the work for the individual, for the man or woman or child who is ill or who is broken and who needs us.

THE WIDENING OF PROFESSIONAL INTERESTS.

There are other relations, however, which exist between us and our communities which we are prone to overlook in the very intensity and keenness of our devotion to professional service. We are physicians, to be sure, but we are also citizens. And as citizens we not only have, I believe, the routine duties of citizenship, but also obligations to the public at large, due to our special knowledge of matters which are of interest and of vital importance to our fellows. Many years ago, when I was a medical student, I recall a short address which the late Professor W. T. Sedgwick made to a small group of us, in which he urged that we were justified in working intensively on strictly professional lines until we reach the age of 35 or 40, but that thereafter we ought to set aside at least one day each week for public service. His own career was a splendid example of disinterested usefulness in public affairs, and the advice he gave was emphasized by his own accomplishments. What he urged upon us then, I wish to urge today—a broadening of the sense of professional duty, a realization of the general needs of our communities that are quite as critical and should be quite as appealing to our professional conscience as the individual needs to which we traditionally limit our attention. The motive for this wider range of action is the same motive that serves for the narrower one—the opportunity for service. And the reason why we should feel the potency of this motive is likewise the same for both—a special knowledge, which we possess and which renders us peculiarly serviceable citizens.

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[*] An Address to the graduating class of the Women's Medical College of Pennsylvania, June, 1921.

The evidence of community need for the kind of intelligence which physicians possess is found in various relatively new understandings of the sources of misery and sickness and of the unhappy consequences which flow from them.

THE IMPORTANCE OF ATTACKING DISEASE-PRODUCING CONDITIONS.

Social studies have revealed that considerable groups of our population are involved in the vicious circle of miseries—poverty and ignorance leading to unhygienic living; unhygienic living leading to ill health and physical inefficiency; these in turn leading to unemployment and further poverty. And so the round of wretchedness continues. Is it not clear that the circle is not strategically well attacked at the stage of sickness, the stage at which we as conventional practitioners of the art of healing are called in? No, the point where the circle should be broken is at the earlier stage of ignorance and unhygienic living. The broadening of our professional services would lead us to increase our influence at that point, where there is chance for preventing the more dangerous events of the cycle.

Again, industrial hygiene has demonstrated the existence of a web of lines on every side connecting the individual with his fellows and with the part he plays in the complex of modern industry. Thus the use of measures to reduce the incidence of sickness and injury of working men has been shown to yield a wide variety of benefits. The worker himself is saved the economic loss which arises both from being out of work and from having extra unnecessary expense. Those who are dependent on him are protected from slipping into the vicious circle of poverty and disease which is an ever-present possibility. And further, industry also is protected from the disturbances and needless costs that ensue when workers must constantly be replaced. All these values are obtained when attention is paid, not to the sick, but to the well, with the object of keeping them well.

Better than anything else the experience with certain infectious diseases has proved, and proved overwhelmingly, the advantages to mankind of medical knowledge applied to groups with the purpose of preventing disease rather than to individuals with the purpose of curing them. The sanitary measures which have been employed to eradicate hookworm and yellow fever, malignant malaria and typhoid are a sufficient witness to the possibilities of improving the physical welfare of vast populations through the services of preventive medicine. Who will set a limit to further developments by methods and in directions suggested by these triumphs? Have we not the right to hope that with wider diffusion of knowledge and with the general awakening of intelligence as to the nature and spread of infections, other devastating diseases will likewise be suppressed?

The lesson of these experiences we as a profession have been too slow in learning. Too long we have been on the defensive in the fight against sickness and premature death. Too tardily have we accepted the military doctrine that the best mode of defence is to attack. Only in recent years have we begun to realize that it is part of our professional service to do our best to eliminate the conditions which lead to the physical distress and damage and the economic inefficiency of our fellows.

There is no question of the urgency of the need for professional medical service outside the sick-room. It has been estimated that in our country every fifty seconds a person dies from preventable disease. That means the appalling number of more than 630,000 such deaths annually. Think of the pain and bereavement and the awful waste of life that that huge figure implies! And in economic terms it is equally astounding. It has been estimated that unnecessary sickness and premature death is costing the United States every year more than two billion dollars. Yet to a great degree these evils are due to ignorance and can be abolished by knowledge and by conduct based on knowledge. There is little doubt that large masses of our population are a full generation behind what the medical profession knows is desirable in the practices of personal hygiene and in the avoidance of disease by employment of preventive measures.

The reason should now be clear why we as physicians have public as well as personal services to perform if we are to do our full duties as citizens. If we were living in an autocracy, we could influence high authority and have benefits wrought by edict. But we live in a democracy, where education must take the place of paternalism, and the people must win their own benefits through knowledge and intelligent action. Because of the social ramifications of disease, therefore, we are finding imposed upon us a new sense of social responsibility and an obligation to use our professional knowledge for the welfare of the group as much as for the individual.

PUBLIC EDUCATION AS A MEANS OF DISEASE PREVENTION.

Already an organized movement in the direction of public education has been started. Eleven years ago there was established in the American Medical Association a Council on Health and Public Instruction. From the start it has had as one of its objects the spreading of information among our people regarding the great advances in scientific medical knowledge during the past fifty years and the possibility of using that knowledge for the prevention of disease, the reduction of the death rate and the promotion of healthier living. Let me tell you of some of the activities of the Council in this aspect of its work.

One of the first things we did was to organize a speakers' bureau. After securing promise of the services, in all parts of the country, of competent physicians, capable of talking with interest and authority on questions of personal and public health, we sent a list of the speakers to about 20,000 Women's Clubs. A pamphlet was prepared describing to local groups the methods which had been found most effective for holding a successful meeting. Speaker's handbooks were assembled, giving in brief compass reliable information which could be added, when thought desirable, to any theme which the speaker intended to develop. Standard sets of stereopticon slides were prepared for temporary loan wherever they might prove serviceable. By these means meetings were arranged all over the United States, and thousands of people were reached.

Another method for diffusing informative matter was through use of daily and weekly journals. For many years a printed sheet containing news items or topics of medical interest was sent regularly to papers throughout the land. The editors soon became convinced that our motive was disinterested public service and had no ulterior intent. More and more this material was used for news purposes and as a text for editorial comment. No doubt through these channels, hundreds of thousands of our population have had opportunity to learn of the most recent advances in medicine.

Still another activity of the Council has been the publication of a series of standard pamphlets for wide distribution. These have been written by the best available authorities. For example, the pamphlet on Tuberculosis was prepared by Dr. E. R. Baldwin, so long associated with Dr. Trudeau at Saranac; that on Typhoid Fever by Professor E. O. Jordan of the University of Chicago; that on Hookworm by Dr. J. A. Farrell of the Rockefeller International Health Board; the pamphlet on Flies as Disease Carriers by L. O. Howard, the well-known entomologist; and that on Pure Water by Professor G. C. Whipple of Harvard University, an expert sanitary engineer. Some of our publications have had a very extensive use. In one year more than 300,000 copies of Dr. Emmett Holt's pamphlet on the Care of the Baby was sent broadcast to mothers by a firm selling babies' blankets! And the Department of Education of the United States Government made use of 750,000 copies of the little publication on the Sanitary Requirements of a Rural School.

A Subcommittee of the Council, on the Conservation of Vision, brought out the fact that in our country the dependent blind cost approximately $15,000,000 annually. It was estimated that nearly 80 per cent. of this blindness was preventable if only people had better knowledge of the causes of blindness and exercised due caution based on that knowledge. Admirable pamphlets on the hygiene of the eye and protection of the eye against damage, written by experts, have been prepared and are being used by speakers, and by others, for teaching purposes.

Another Subcommittee of the Council which has done excellent service is that on Public Health Education Among Women. This aspect of the organization was testimony to the fact that much of the work for public health is in its essentials nothing more than good housekeeping, applied on a large scale. It was realized that already in many cities the principles of cleanliness, neatness and good order had been insisted upon by women's organizations and that the public spirit which prompted these activities could be counted upon in other efforts to promote the happy chances of life. Representative women physicians have served on this Committee and have been effective intermediaries between the organized medical profession and the natural interest of lay women in establishing circumstances favorable to better health.

In this connection another great public-spirited body should be mentioned—the Women's Foundation for Health. This is a federation of 14 national women's organizations, having a total membership of 10,000,000. Its aim is to push an aggressive campaign for the attainment of vigorous health by women. According to its enquiries, out of 100 girls examined only 10 are really well. Another 10 need to go to a doctor or a dentist or surgeon for curative or corrective attention. The remaining 80 of the 100 are suffering from three to eight symptoms which keep them below par—symptoms which are the result, not of disease, but of faulty health habits. These figures can readily be credited when we realize that the examination of an enormously large number of men in the draft revealed that from 33 to 50 per cent. of them were unfit for service, because of physical or mental defects. The object of the Women's Foundation, then, is to strive, not for health as the negation of disease, but for positive health, a degree of health that is attended by vigor and energy and fitness for all the stresses that life may bring. In the Foundation, as one of the constituent members, is the Medical Women's National Organization.

Besides these activities we have seen develop nation-wide campaigns against tuberculosis and venereal disease, public efforts in many places to lower the rate of infant mortality, an extensive home-nursing service instituted by the American Red Cross, and the spread into ever-enlarging fields of State and national health functions.

What does this strange evolution in medicine imply? Where does the general practitioner fit into these new relations which are arising between voluntary or professional health organizations and the public? What attitude shall the individual physician take towards attempts to improve the health of our people by lectures and classes and organized propaganda?

THE DOCTOR AS A PROMOTER OF PERSONAL HEALTH.

There is, I believe, an unfortunate tendency among us to try to draw a sharp distinction between the preventive and the curative aspects of medical service. The preventive work, it is said, should be restricted to State and national agencies or to voluntary organizations composed largely of laymen. And the practice of curative medicine should be solely the service of the private practitioner. As a matter of fact, it is difficult to separate definitely these two aspects of medical activity. The curative treatment of the insane and the delinquent is unhesitatingly admitted to be a State function. And when treatment is the means of prevention, as in the case of smallpox, for example, again the community, not the individual physician, becomes responsible for the patient's care. On the other hand, the private practitioner called to a case of typhoid fever, for example, at once has the duty thrust upon him of warning the whole community of the danger, and setting at work all the machinery for discovering and cleaning out the source of infection. Obviously there are overlapping areas in the application of preventive and curative measures that do not permit hard and fast boundaries to be drawn. In the common territory it appears that the agents of preventive medicine have been encroaching or threatening to encroach on what have been regarded as the privileges of curative medicine. Bitter resentments have thus been aroused, and in consequence societies have passed strong resolutions denouncing what is designated "State medicine" and calling a halt in its further progress. The conflict which has thus arisen is concerned with the theme we have been considering and may properly be discussed in relation to it.

The difficulties in the present situation seem to me to be brought a step nearer resolution when we find the proper answer to the question, What is the function of the medical profession? If we knew nothing of the antecedents of disease and accident we might be justified in answering that our function is solely to treat the sick and injured. But, as we have already noted, we know with certainty the approaches to disease and the ways in which the organism may be damaged, and, therefore, it becomes as much our duty to warn against the dangers as it is for the trackman who detects a broken rail. The service of the profession, then, should be not merely curative but also preventive—we are charged with promoting the physical and mental health of the people. If that statement is accepted, no difference will be found between the functions of the State and national agencies for the promotion of public health and the functions of the doctor in private practice.

Now the further question arises as to whether the private practitioner has fulfilled to a satisfactory degree his functions. The declaration has been made that he has not. It has been pointed out that the large amount of preventable disease in our population, the wide prevalence of uncorrected physical defects in our young men as revealed by the draft, and the ignorance among laymen of elementary principles of hygienic living are illustrations of the failure of the medical men to render their full duty to the communities they serve. The indictment has some justification. I do not believe, however, that physicians are alone at fault. Both they and the people of their communities have maintained the traditional attitude that the doctor's services should be limited to the care of the sick. It has not been expected that he would attend to ailments which are not called to his attention, or that he would look after people with the object of keeping them well and in a condition of high efficiency.

And [illegible] ask still another question: Is not the theme we have been considering—the broadening of the sense of professional duty so that it includes the promotion of health—is not this theme the correct answer to make to the charge that doctors are failing to give the people proper care, and is it not the correct solution of the internal conflict between the private practitioner and the medical agents of the State? Clearly the physician cannot engage in the promotion of the personal health of his people without their coöperation. There is need for instructing the public in the advantages to be derived from securing health and physical efficiency instead of being repaired after a breakdown. But let people once learn that minor ills can spoil the keen edge of living, that it is well worth while to get into good physical condition and stay there, and that, like less complicated mechanisms, the human body needs periodic examination to determine whether it is standing the stresses to which it is subjected, and the welfare of our population would be raised to a level not hitherto attained. Many a physician learned during the war the importance of the morning "sick call" as a means of detecting the early stages of disorder. And every physician knows that it is in the early stages that he is best able to give the most effective treatment. If only through public education the physician might become the conservator of the family health, keeping the members well so far as possible and being ready to care for them when they fall ill, an enormous benefit would be wrought in the well-being of our population. And it would establish a new position for the doctor. He would become a leader in bringing about better modes of living. He would be a teacher of his people in ways of avoiding disease, and an even more effective collaborator than at present with the officials of the State in the protection of others against the spread of infections.

THE DOCTOR AS AN EDUCATOR AND COUNSELLOR.

It is obvious that such service as I have suggested would require changes in medical education. Greater emphasis would have to be placed on the standards of health, the elements of personal hygiene, the appropriate physical exercises at different ages, the influence of fatigue on bodily processes, the effects of worry and anxiety and deep emotional experiences, the dietary requirements for various conditions of life and labor, suitable clothing, and the best modes of securing rest and sleep—all these features would have to be understood and made as impressive to the lay mind as the transfer of infections, if we are to engage in an aggressive campaign for efficient living. It is obvious also that no such campaign can be waged until laymen are ready to coöperate in carrying it on. Already there are signs, however, that people are being awakened to the possibilities of individual health conservation. School inspection has shown to many communities that by means of tests, even though they may be applied by inexpert persons, defects are discovered and remedied, with marked benefit to the children. Industrial physicians are familiarizing large bodies of industrial workers with the idea of preventive medicine applied to the individual. And the Life Extension Institute in New York has likewise done much to popularize the view that human well-being and efficiency should be sought and can be secured, if only physicians and laymen work together in striving for them.

At no point is an attack on physical weakness and defect and on disease itself undertaken with greater strategic advantage than in relation to children. In them many of the troubles with which the doctor deals are found in their incipiency—the hopeful stage. Furthermore, childhood is a time of life when prevention and early treatment are especially important, because uncorrected faults may have far-reaching consequences. No better illustration need be given than that of imperfect vision, which, if not attended to, may lead stepwise to retardation in classes, discouragement, dislike of study and reading, and finally to departure from school, with a poor mental equipment and a handicap for future work. It is the early correction of such difficulties that saves the disappointments and distresses of later years. Again, if children are taught the principles and application of healthful living, they are likely to carry home both the knowledge and the practices which they have acquired. We must remember that children have a public opinion of their own, often more loyally supported than the judgment of their parents, and that through this opinion attitudes towards health measures are established which may influence the present generation but will be sure to influence the next. The securing of a wider diffusion of knowledge among children regarding public and personal hygiene is, therefore, one of the most powerful and certain methods of promoting community welfare. In this relation, perhaps, the women physicians of the United States have an especially good opportunity to extend their professional functions.

If through popular education of children and adults the private practitioner should in the course of time be expected to practice both preventive and curative medicine in the families he cares for, his function as an educator and leader in public welfare would become much more important than it is now. His service as a diagnostician and doctor of medicine may still be in competition with others who treat disease, but his service as a developer and preserver of personal health would link in with the functions of the State. He would quite naturally be foremost in securing expression of popular will with regard to such public affairs as the betterment of living conditions, the eradication of evils threatening the integrity of the race, and the carrying out of programs for attaining a higher degree of physical and mental efficiency. Because his interest in the personal welfare of his people would have become primary, he would be in a strong position when questions affecting public welfare are raised.

THE DOCTOR AS AN INTERPRETER OF CONDITIONS AFFECTING PUBLIC WELFARE.

We are beset by questions affecting public welfare. Forgetful of the lessons which mankind has learned, and ignorant of the triumphs of preventive medicine, agitators are conducting active propaganda against the medical inspection of school children, against the use of preventive measures in such pestilences as smallpox and typhoid fever, and against any limitation of the liberty of carriers of disease. So long as we are merely practitioners of medicine our counsel with regard to the questions raised by these propagandists is not likely to be sought. If we should take on the larger service of being teachers and advisers of those we serve, we should quite naturally become interpreters of the facts on which are based the regulations and practices employed to promote the public health. We should find it one of our duties to point out the reasonableness of the rules which the neighborhood makes for its own protection. And although preventive measures necessarily trespass on personal rights, even the most extreme individualists must recognize the force of a public opinion which is based on an understanding and well-informed intelligence.

Another form of propaganda that is constantly going on is that against the use of animal experimentation for medical progress. Atrocious falsehoods regarding the treatment of animals in laboratories and utterly absurd denials of the benefits to mankind derived from application of the experimental method to problems of disease are widely circulated in our country by societies whose avowed object is the total abolition of so-called "vivisection." This effort hits directly at the most effective means that is known for discovery of the nature and treatment of disease. Success of the effort would be disastrous; for many problems still remain to be solved, and only through careful tests on lower forms of animal life can mankind be saved from continued disability and premature death. All these facts, long known to physicians, need to be explained to laymen. The doctor as an educator and adviser would be in an influential relation to the public as he told the story of medical progress and the debt we owe to lower animals for our saving knowledge of bodily processes and the ways in which they may be disturbed.

Still another menace to the best interests of public welfare lurks in the development of quackery and sectarianism in medicine. The special modes of treatment—such as the blue glass fad, magnetic tractors, naturopathy, osteopathy, chiropractic, etc.,—have a natural history of being advocated by zealots, accepted by the uncritical and the seekers after novelty, of flourishing for a time and then passing away entirely or leaving in the body of medical practice any good they may have held. It has been customary for the medical profession to oppose the progress of these cults by advocating repressive legislation. Doctors seem at times to have regarded the license to practice medicine as a protection of their professional rights rather than as a protection of the public. Our attitude directly hostile to legislative recognition of new modes of treatment has been in the main neither dignified nor effective, and has led to unfortunate misinterpretation of motives. Again, the remedy lies in popular education, in an enlightening of people regarding the difference between cautiously progressive scientific medicine and pseudo-scientific propaganda. And again the doctor as an instructor and counsellor regarding the nature of disease would be in a favored place for teaching the limitations and dangers of ill-founded fantastic dogmas of both pathology and treatment.

This is, I believe, a momentous time in medical history. Knowledge has developed so rapidly and so extensively that no one mind can compass it. Practice has required such special methods and skill that no one individual can command acquaintance with all the procedures. Preventive medicine has demonstrated its values so thoroughly that everyone recognizes the propriety of State action when the public health is menaced. In this unsettling of traditional customs of medical practice, in this bewildering time when the relations of doctor and patient are continually shifting and there are conflicts of methods and uncertainties of future developments, what are we to do? I have tried to make clear that, no matter what happens, we must keep foremost our ideal of service. As practitioners we must engage in preventive medicine as well as in curative medicine, because in both ways we know how to help our fellow men. But industry and the State are likewise laying emphasis on preventive medicine, and the specialist is proving his claims to greater skill and insight when difficult cases appear. What, then, is to become of the general practitioners? Resolutions passed by medical organizations setting limits to this and that function of professional service will not determine events. Constructive programs are required, based on consideration of the needs of the people and the abilities of physicians to supply those needs. In the suggestions which I have offered that the general practitioner shall become an educator and an aggressive worker for health, there is much that is not new, or foreign to the labors he has long been performing. Only a stronger emphasis is laid on the private practice of preventive medicine than has been common in the relation of doctor and patient in the past. Other and better solutions of the problem of assuring adequate medical service may be suggested. And no full program can be laid down at this time.

THE MEDICAL PROBLEM IN RURAL COMMUNITIES.

The solution of these problems of readjustment of medical practice is only a part of the larger theme which we have been considering—the possibility of a better civilization in our country by medical attention to human needs. Another aspect of the same theme is beginning to loom large in rural communities. Studies made in different parts of the United States have revealed that the practitioners of medicine in the small towns are in the main elderly men—men whose age averages between 55 and 60 years. The fact is being recognized that the graduates of our medical schools are not being attracted to the country. The facilities with which they have become familiar in their medical course are not provided there—the library, the laboratory, the x-ray apparatus, the operating room and the hospital ward. I have known of physicians who have left rural practice because they felt that they could not conscientiously treat the sick unless they had the opportunities regarded by them as essential for making a thorough diagnosis. What is to be done under these circumstances? At least 40 per cent. of our population dwells on farms or in small towns. The economic stability of the nation depends on the products of the labor of these citizens. They should have just as good and just as well assured medical service as any other part of our population. Ten or fifteen years hence, when the elderly doctors have passed away, are these people to be left without adequate medical attention? Already in two New England States towns have guaranteed funds to induce physicians to come and serve them. Shall we look forward to a time when as a rule physicians must be subsidized to undertake country practice? Will State medical officers be sent to care for outlying communities? The suggestion has been offered that the best mode of solving this serious problem lies in the establishment by communities—by counties or groups of counties—of public hospitals, offering all the conveniences needed for first-class practice. And the argument has been put forth that such a hospital in a center from which radiated a system of good roads could provide medical care for a wide area. Further, because of the common use of the hospital, physicians would be frequently brought together in consultation and conference, with the result that professional discouragement and decay resulting from isolation would be remedied and the young practitioner would be attracted. Again the solution which has been offered may not be the best one and on further examination may be shown to have grave defects. And even if it were regarded as the most satisfactory way out of the crisis which seems to be approaching in rural life, there would remain the necessity of persuading people of its desirability and of the reasonableness of spending public money for hospital construction and upkeep.

Such, then, are some of the puzzling questions which are of concern not only to the medical profession but to the public at large at this time. We, as servants of the common weal, should become keenly conscious of them and give our best thought to answering them. Attention to these questions will take us out of the routine of our daily duties, and bring us into relation to others who as public-spirited citizens are looking forward to and working for a better day. With them we must think out as clearly as possible the conditions which will be best for the welfare of all people and then strive to establish them. The opportunity for both professional and public service is a great one for us all, but especially for those who are just now entering on the duties of physicians.

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Original Articles.

THE FAILING HEART.*

BY PAUL D. WHITE, M.D., BOSTON.

INTRODUCTION.

HEART FAILURE consists of the inability of the heart to carry on a circulation sufficient for the ordinary life of an individual. It is thus a relative term. The amount of work routinely performed by one man may suffice to produce heart failure in another man who does not show any cardiac weakness in the habitual pursuits of his life. Mackenzie defines heart failure as "the condition in which the heart is unable to maintain an efficient circulation when called upon to meet the efforts necessary to the daily life of the individual."

The term "cardiac insufficiency" is, on occasion, preferable to "cardiac failure," for when the latter expression is used the average man in the community at once thinks of failure in its extreme phase when the victim is about to depart this life. "Decompensation" is an unsatisfactory term which I for one would discard with pleasure.

In general, there has been too much mystery about heart failure—in the books too much about back pressure, reserve force, restored compensation and all. The complication of the discussions of the subject has clouded it. There is still something to be learned about heart failure, but what is known may be, I believe, more clearly expressed than often one finds it.

How is the circulation normally maintained? By the proper action of the heart muscle and coöperation of arteries and capillaries. That circulatory insufficiency which is the result of failure of the peripheral circulation, and not of heart failure, I shall not dicuss, except clearly to point out that these two causes—cardiac and arterial—of circulatory failure must be differentiated. Examples of peripheral circulatory failure are found in ordinary syncope, so-called surgical or traumatic shock, endarteritis and thrombosis.

TYPES OF HEART FAILURE.

Lewis has differentiated two types of heart failure or cardiac insufficiency, one in which dyspnea and congestion are the chief features, and the other in which pain, severe or mild, in the region of the heart, is induced by exertion. The former he has called "failure of the congestive type," and the latter "failure of the anginal type." Sometimes both pain and congestive symptoms and signs occur together, but more frequently they seem to be separate. It should be emphasized that angina pectoris or heart pain may be just as important evidence of cardiac insufficiency as edema; in fact, often much more so, if severe. The trem "pseudo-angina" is a poor one and should be dropped. Many of the cases showing it prove later to have the so-called "true angina pectoris," dependent on actual sclerosis of the coronary arteries, and those that do not can be better classified, as I shall show shortly. There may, of course, be all graduations of both types of heart failure.

CAUSES OF HEART FAILURE OF CONGESTIVE TYPE.

I shall discuss now both types of cardiac failure or insufficiency from the standpoint of cause, diagnosis and treatment. First let me take up the "congestive" type. The etiology for heart failure is fundamentally the same as that for heart disease plus the necessary over-exertion or excitement which acts as the last straw to break the camel's back. The common causes of heart disease are, therefore, the common basic causes of heart failure. Arteriosclerosis, rheumatism, chronic hypertension, syphilis and thyroid intoxication are in about that order the important factors. Sometimes two or three of the causes are combined in an individual case. But in the study of a patient with symptoms or signs of cardiac insufficiency it is not enough to make a diagnosis of heart failure; it is just as important to analyze and state the fundamental cause if it can be found, and if it cannot be found, it should be so declared. Also structural changes in valves and heart chambers should be ascertained and diagnosed, for they do make a difference in prognosis and treatment. The pendulum has begun to swing over from the former complacent attitude of the medical profession in the diagnosis of mitral regurgitation and cardiac dilatation towards simple expressions of functional capacity, but it tends to swing too far. The stethoscope is still a useful instrument, as are also the blood pressure cuff, the x-ray and the electrocardiograph. We must simply not read into their findings undue significance. In the presence of heart failure I like to know, for example, whether the patient is one showing also rheumatic heart disease, mitral stenosis and auricular fibrillation, or syphilitic heart disease with aortic regurgitation and normal rhythm. Prognosis and often treatment will vary according to etiology.

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*Read before the Norfolk District Medical Society, March 28, 1922.

DIAGNOSIS OF CONGESTIVE FAILURE.

The first evidence of the onset of congestive failure is dyspnea on some ordinary exertion. From this symptom a steady progression to edema, cough and cyanosis may occur and of course when these develop the diagnosis becomes obvious. With dyspnea alone, however, diagnosis is not so simple. Probably just as frequently, or even more so, dyspnea is a symptom of nervous fatigue as expressed by the so-called effort syndrome. In young people this condition of exhaustion of an oversensitive nervous condition is very common. We found it everywhere in the army and I find it everywhere in civil life. Girls labelled "mitral stenosis" are as likely to have "effort syndrome" as mitral stenosis; young chaps labelled "gassed in France" are much more likely to have "effort syndrome" than any effect of the gas on their hearts; in fact, almost certainly so. This is a very vital matter to recognize, for the whole future of the individual may depend on the early and proper realization of the condition. I have seen a girl of about 20 who had been kept as an invalid for several years with the warning never to marry who had just as normal a heart as yours or mine, and perhaps more normal. She was of nervous temperament, showed dyspnea on exertion and had a sharp first sound which had been wrongly called a presystolic murmur. It required much explanation on my part to convince her that she was just high strung but normal as to her heart after the hermit's life she had lived for years. Very helpful points in distinguishing between dyspnea of heart disease and of effort syndrome are that there is apt to be more palpitation with effort syndrome and that there is often actually more heart pain of one kind or another. Very helpful additional evidence against heart disease as the cause of the shortness of breath is the story in young people of dizziness with or without actual syncope. If a young girl comes to me, complaining of fainting, palpitation and shortness of breath, I should be right ninety-five times out of a hundred if I considered her a case of effort syndrome rather than of heart disease even before I examined her. The term "effort syndrome"' is weak in that it does not express the effect of excitement on such hearts, often much more striking an effect than that from effort. Neuro-circulatory asthenia was a term used in this country for the condition during the war. Nervous heart is another term in use.

I should like to make one further observation about this very important condition of effort syndrome, and that is, that it may coexist with heart disease, especially in young people. I find almost invariably that the symptoms in such people are ascribed by the doctor to the heart trouble, when as a rule a considerable percentage, and sometimes even a great preponderance, of the symptoms are the result of the associated condition of effort syndrome.

Other less common conditions than effort syndrome, to be differentiated from heart failure, are hyperthyroidism and subacute or chronic infections, which after all really express themselves cardiovascularly as effort syndrome. Tuberculosis, subacute endocarditis, and low-grade septicemias are particularly apt to be mistaken for slight heart failure. Anemia, primary or secondary, and malignant disease are other conditions, and chronic nephritis still another, if producing toxic symptoms, to be distinguished from a failing heart. Chronic bronchitis, hepatic cirrhosis and phlebitis with edema may rarely simulate cardiac insufficiency. A recurrent acute endocarditis in an old rheumatic heart is particularly apt to be confused with heart failure. Careful temperature records and blood counts are often necessary.

What about asymmetrical failure of the ventricles? And how does the old back-pressure theory fit into it? There is little question but that in chronic mitral stenosis, where the right ventricle has hypertrophied preponderantly to maintain the much-increased pressure of the pulmonary circulation, the strain may finally become too great for it. It may begin to fail before the left ventricle does. This is not back pressure. It is just inability of the right ventricle to maintain a proper forward pressure. The lungs become more and more engorged and edematous, and the blood poorer and poorer in oxygen. This affects the whole body and, incidentally, through the coronaries the left ventricle, which eventually also begins to fail. Then general edema appears in the legs and belly, and finally we have a picture of extreme failure of the whole heart. It is similarly conceivable that in chronic systemic hypertension (as opposed to pulmonary hypertension) the left ventricle, which carries the burden, may be overstrained and begin to fail. Edema appears, coronary circulation is interfered with, and so the vicious circle goes on with the right ventricle finally failing also because it is poorly supplied with blood. It appears to me that this explanation of asynchronous onset of ventricular failure seen in some cases is a reasonable one; it is supported by a good deal of evidence.

Whether or not it is possible to tell which coronary is thrombosed by evidence of the earlier failure of one ventricle than the other I do not know. At the present time I have under my care a man who a month or more ago had probable coronary thrombosis (evidenced by very severe prolonged pain requiring repeated doses of morphia and followed by acute pericarditis and paroxysmal auricular fibrillation and great weakening of the first sound, with an old history of repeated brief attacks of angina pectoris). He now has pulmonary edema with hemoptysis and cyanosis with little or no edema elsewhere. He may have thrombosis of his right coronary artery, or of that part of the left coronary which helps to supply the right ventricle.

TREATMENT OF CONGESTIVE FAILURE.

Now as to the treatment of heart failure of the congestive type. One of the very commonest conditions associated with this type of failure—and indeed in large part responsible for it—is auricular fibrillation or absolute arrhythmia of the pulse. When a patient with this arrhythmia is first seen, before treatment, the apical pulse rate is usually very high, averaging perhaps 150 per minute and fitting in every way the old term *delirium cordis*. In such a patient prompt and proper treatment results in such vast and striking benefit that its recognition and relief constitute one of the demonstrations of the real value of the doctor in the community. I dare say medical reputations in practice are not infrequently established by the fact that foxglove by its poisonous effect on the junction of the auricular muscle and the node of Tawara acts as a sedative to the heart. Thus only indirectly is digitalis a stimulant — by far its greatest benefit comes from its poisonous sedative action. And indeed it is worth while to recognize auricular fibrillation as an essential factor in the production of much heart failure of the congestive type. The failure results from the strain of a very rapid heart beat on a diseased or weak or exhausted myocardium. The speed is more important, I believe, than the rhythm; for once the rate is reduced circulation is restored in most cases in spite of the persistence of the irregularity. Simple as this may seem, the discovery in actual practice of improper treatment of the failing heart with auricular fibrillation makes me feel that too much emphasis cannot be placed upon it. Usually too little digitalis is given or it is given too slowly. As one authority has said, many people have died as the result of digitalis therapy, because too little was administered At times perhaps the actual quantity of dried leaf or tincture or infusion may have seemed sufficient, but a feeble leaf may be responsible for its inertness. However, I think it may be truthfully said that nowadays most of the digitalis preparations on the market are of good potency.

An example of the treatment of a patient with heart failure of the congestive type may interest you. It was to me a striking lesson. A woman of 55 years, seemingly on her death bed, I saw in consultation in an outlying town eighteen months ago. She was very ill, orthopneic, cyanotic and markedly edematous. She was raising bloody sputum. Her apex pulse rate was 164, absolutely irregular; her radial pulse 142, a pulse deficit therefore of 22. She had had rheumatic fever in childhood and for a year past had had palpitation, dyspnea and precordial distress, apparently somewhat relieved by small amounts of digitalis. She had become acutely worse two weeks before I saw her. Small amounts of digitalis having failed to help her, she was put on crataegus oxyacantha—5 drops every three hours, with 1/100 grain of strychnine and 5 drops of whiskey every half-hour. She was losing ground fast and it did not seem that she could live overnight. I found mitral stenosis and auricular fibrillation present, undoubtedly of rheumatic origin. She promised to be a favorable case for saturation with digitalis and I gave a hopeful prognosis. Her heart was obviously crying for digitalis (as shown particularly by the very rapid, irregular apex rate). We therefore began giving her digitalis leaf by mouth (and, by the way, it is very rarely necessary, even in such an emergency as this case was, to give digitalis by vein or under the skin.) Three grains (0.2 gram) were given every four hours and the order was left to continue this dosage until the *apex rate* fell below 80 or until the patient was toxic (as shown by nausea or a coupled pulse). *All other drugs* were omitted.

The next day she was already better, and when I telephoned on the second morning I found she was wonderfully improved, the apical pulse rate 68 without deficit, but still irregular, of course, the edema vanishing like snow in the spring sun and the cough stopped. She could lie flat with comfort. This miraculous effect was accomplished, I am convinced, by the reduction in the pulse rate. The heart was beating 96 times less often every minute than it had been beating two days before. Just think what this means to a tired heart—in 24 hours, 138,000 contractions cut out!! No wonder the myocardium was recovering and the circulation restored. Shortly this patient was up and around, and within the past month I have heard from her doctor that she is in very fair health.

In connection with this case I want to emphasize the importance of recording the apex pulse rate—it should always be done when auricular fibrillation is present. Both apex and radial pulse rates should be taken simultaneously by two observers, or else in successive minutes by one observer and the difference graphically represented, if possible; the difference is the pulse deficit. The reduction or melting away of this deficit under digitalis therapy is a good guide in treatment. Yet often one finds even in unexpected places that the radial pulse is the only pulse record on the nurse's chart. I remember one striking case in which, according to the chart, which I examined first before I listened to the heart, the pulse was recorded as 90-odd, feeble and irregular. In this case the apex rate was over 170 and auricular fibrillation was present. The institution in this patient of proper treatment, with relief, actually depended on the recognition of this fact.[*]

I do not believe in overdoing the matter—that is, in giving too big a dose of digitalis at the outset. In the first place, one may not be absolutely certain about possible digitalis already taken, and secondly, there is no particular point in making the patient nauseated, even though in the process the heart is vastly improved. Also rarely digitalis kills. Intense nausea and vomiting and the bigeminal pulse are indications that we are close to the danger point in digitalization—probably nearly 90 per cent. of the lethal dose has been given. There is a happy medium between the small doses of bygone days and the massive doses which we have recently tried in some cases. The size of the individual must be taken into consideration, particularly in the estimation of a proper dosage. Last night I saw a woman weighing only a few pounds over 80, who, having needed digitalis badly, had been given 3 grains (0.2 gram) of the leaf (a potent preparation in this case) three times a day. After two days she became intensely nauseated and had very severe gastro-intestinal symptoms for over 24 hours, with almost constant vomiting. When I saw her she was already getting over the worst effects of the drug and looked quite well, but was still nauseated. She had rheumatic heart disease, mitral stenosis and auricular fibrillation. Her apex rate had fallen from 130 to 58, and her circulation was almost completely restored. However, a person of her weight should have received a smaller total dose and she would have been better off. This illustrates the opposite error in the administration of digitalis.

One other case I want to cite here—a woman who entered the wards of the Massachusetts General Hospital 18 years ago. She had rheumatic heart disease and auricular fibrillation. I have looked up her record and I find that she was treated for weeks and given tincture of digitalis in insufficient quantity and only at intervals. She actually was discharged from the hospital with edema still present and a high apical pulse rate (over 110), simply because the physicians in one of the best hospitals in the country, even as recently as this, did not know how to give digitalis and did not recognize the significance of auricular fibrillation. Under a very discerning clinician outside the hospital this patient improved and lived for years.

I cannot leave the very important subject of the treatment of heart failure of the congestive type without four more brief observations. First, it is essential that, after bringing the heart of a patient with auricular fibrillation under the control of digitalis, it be maintained under that control. Again, this sounds simple, but it is everywhere neglected. After a striking recovery under digitalis the patient with auricular fibrillation, whether arteriosclerotic or rheumatic in origin, goes on his way rejoicing. All goes well for a few weeks and then the pulse slowly climbs again, and with it comes another "break" in circulation. The process is repeated time after time; much work and money are sacrificed by the victim and undoubtedly his life is shortened. The rational procedure is to maintain digitalization in a patient once after securing it if the patient really needs the drug. Of course, this applies particularly to cases with auricular fibrillation. Give daily about the amount which is excreted. This is about 1½ grains (or 0.1 gram) of the leaf in the average adult, who has been digitalized by about 22 grains (1.5 grams) in divided doses in two or three days. By maintaining this digitalization a patient may keep at work for years and undoubtedly live longer. It does no harm, so far as anyone knows, to take digitalis daily for years. Withering, more than a hundred years ago, knew more about the proper use of digitalis than many physicians do today.

The second point concerns the administration of digitalis to patients with normal rhythm. There is experimental evidence, and clinical, too, that even when the pulse is regular and fairly slow digitalis does help in failure of the congestive type. Apparently, in addition to its toxic effect to block off stimuli from auricles to ventricles, thereby resting the heart, there is also a direct stimulating action on the ventricular muscle. Such cases of congestive failure respond much less dramatically, however, to digitalis than do patients with auricular fibrillation.

The third point concerns the manner of giving digitalis and the use of other digitalis-like drugs in congestive failure. I have found that a good leaf in pill form by mouth is the most satisfactory therapeutic method. *There is no virtue of the tincture or of the infusion or of various costly pharmaceutical preparations of*

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[*] Mackenzie feels that too much emphasis should not be placed on the "pulse deficit" since the figure for the radial pulse rate in auricular fibrillation varies with the ability of the observer to count the beats at the wrist.

digitalis over the leaf itself, provided one knows that the leaf is potent. In hospital use the ordinary leaf is one-tenth to one-fortieth as expensive as various trade preparations, and apparently just as effective. Other drugs of the digitalis series—strophanthus, squill, apocynum and convallaria—may be dismissed with the simple statement that for heart failure of the congestive type they are inferior—all of them—to digitalis. Other drugs, such as strychnine, camphor, caffeine, adrenalin, cactus and crataegus, are probably of no value as cardiac stimulants. To be sure, caffeine is a good respiratory and nervous stimulant and will at times break up periodic breathing such as Cheyne-Stokes, restoring a regular respiration; adrenalin will for the moment raise the pressure and dispel the circulatory failure of shock; and strychnine is a stimulant for the central nervous system; but there is little or no evidence that they affect the heart, and until there is I believe we should use such drugs only symptomatically—some of them, such as cactus, not at all. Quinidine is not a drug for the treatment of heart failure. Its sole function is to stop or prevent auricular fibrillation in selected cases.

I should like to digress here for a moment to say that I do not believe in giving a multitude of stimulants (so called) in infectious disease to "prevent the heart from failing." One of the most successful recoveries I have ever witnessed from severe exanthematic typhus was in a man who had two excellent nurses but no drugs at all.

Finally, the fourth point I want to make briefly is that besides the use of digitalis in congestive failure we have numerous other important measures. These are simple and widely followed, and I shall merely name them and then pass on to the final part of my talk: absolute rest in bed while there is failure; morphia if there is pain or great discomfort; veronal or bromides if sleeplessness; diuretics (caffein, diuretin, theocin, calomel) if there is obstinate edema not vanishing with rest in bed and digitalis; reduction in quantity and richness of food (sometimes the extreme limitation of the Karell diet is helpful); catharsis (but not enough to exhaust the patient) and venesection in rare cases.

DIAGNOSIS OF HEART FAILURE OF ANGINAL TYPE.

And now I shall discuss briefly the very important heart failure of the anginal type. Here the only evidence of any sort may be the heart pain. There may be no other symptoms and there may be absolutely no signs of heart disease, and yet serious myocardial disease may be present. Mackenzie has recently told the story of a man of 60-odd who came to see him some six years ago because of heart pain. Although he could find no abnormality of the heart or circulation on physical examination, he diagnosed coronary sclerosis and warned the patient. He did not see this man again until two years later, when the patient visited him once more and said that he was worse. He admitted that he had not heeded Mackenzie's warning, but had continued an active life. When asked why, he said that at the request of friends he had visited a prominent doctor in a far country. There many specialists had examined him and tested the contents of his stomach, bowels, bladder and veins; had taken x-rays and electrocardiograms, had determined his metabolism, and had tested the effect of various diets. All the results were negative and the man was pronounced normal. Because there was no instrument to measure and record the pain it was ignored. The man died later with angina pectoris. This is an extreme case, but it does support Mackenzie's contention that as accurate as seem to be our instruments of precision, they cannot reveal everything—they are still not infrequently too crude to show the more delicate pathological changes in the human body. Sometimes we are fortunate in the study of a doubtful case of angina in finding evidence of cardiac enlargement or aortic dilatation by x-ray, the extremely significant intraventricular heart block by electrocardiogram, the weak first heart sound at the apex by stethoscope or a positive Wassermann reaction. Occasionally all these findings are absent and yet the patient may die suddenly and show at autopsy coronary sclerosis, or even, in the severer cases, coronary thrombosis, with perhaps hemorrhage into the pericardium through a tear in a weakened infarcted ventricular wall.

Age at or beyond middle life and heart pain of almost any degree are the essential factors in the diagnosis. There may or may not be cardiac enlargement or high blood pressure or murmurs or poor sounds or pulsus alternans or peripheral arteriosclerosis (such as radial sclerosis or arcus senilis). Young people with heart pain almost always have the unimportant effort syndrome and must be differentiated. Such cases usually show also dyspnea, palpitation and nervousness. In these youths with effort syndrome sometimes the heart pain may be very severe and radiate even down the arms. As a rule, in an older person the pain is the essential symptom; it comes on as the result of exertion or excitement or the pressure of a full meal, before there is time for the development of dyspnea.

Acute or chronic abdominal disease (especially gallstones) often has to be differentiated from angina pectoris; rarely pleurisy or pericarditis may simulate it. Many attacks of "acute indigestion" in old people are simply angina pectoris.

There is rarely, if ever, edema except in the late stages, when, after years of angina, the congestive type of failure may supervene. The patient, however, rarely lives long enough to develop the congestive type of failure, but I have seen recently a doctor, 70 years old, who began to have definite angina pectoris 12 years ago and who is now showing dyspnea and edema. As this case indicates, the condition is by no means immediately fatal, or even fatal in a few years, in all patients. It is one of the most difficult conditions in the practice of medicine to which to attach a reasonably accurate prognosis. An extremely rare combination of cardiac conditions is due to the coincidence of chronic auricular fibrillation and angina pectoris. This has been clearly recognized by Mackenzie and others. I have seen but one such case in arteriosclerotic heart disease. Paroxysmal auricular fibrillation with coronary thrombosis is not so rare.

CAUSE OF HEART FAILURE OF ANGINAL TYPE.

The cause of failure of the anginal type seems to be a malnutrition of the myocardium as the result of coronary sclerosis. Ordinary arteriosclerosis is the essential etiological factor, but syphilis plays an undoubted part in some cases. I do not believe that the condition is always the result of aortic changes (chiefly an aortitis), as suggested by Allbutt. I feel that myocardial irritation and disease as the result of temporary or permanent insufficient blood supply, because of abnormal coronary arteries, is a more important factor. The site of origin of the pain is interesting; it is often substernal, but also sometimes apical. Perhaps this variation is dependent on the site of the chief lesions —aortic or coronary. It seems probable that the angina of luetic aortitis and of coronary arteriosclerosis may be of different nature. This needs further study and analysis, and I have not had time tonight to go into the details of the variations in position and intensity of angina pectoris. It may be said, however, that the pain of true angina may be substernal or apical (more often the former), gripping or knife-like, constant or transitory. Interesting variations may occur, such as epigastric pressure, *right* chest ache, or numbness of the left wrist on exertion actually antedating substernal pain in the same case.

The mechanism of the production of the pain is not yet clear. It seems possible that a constriction of irritable coronaries may account for the usual attacks of angina, while for the prolonged terrible heart pain coronary thrombosis is responsible.[*] It is conceivable that coronary branches of various sizes may be irritable or thrombosed, giving rise to all gradations of symptoms and signs. When one says that coronary thrombosis is always fatal in minutes, hours, days or weeks, one means that if a large enough artery is thrombosed the patient will die. I have seen at least temporary recoveries in several cases with probable coronary thrombosis.

Louis Gross of Montreal, in an excellent book on the coronary circulation (which it would benefit you all to read), has demonstrated the remarkably extensive coronary anastomoses in the human heart, particularly with advancing age, through the establishment of new vessels to supply the pericardial fat. He incidentally cites the case of an old woman who died of malignant disease. At autopsy it was found that her right coronary artery was completely thrombosed. Her myocardium was, however, almost perfectly normal as the result of anastomoses through the left coronary artery. She had in life never shown any symptoms or signs of heart trouble.

One further comment should be made on the subject of anginal failure before I end this talk with a brief discussion of its treatment. Nervous, high-strung people are probably more likely to show angina than placid individuals with the same degree of arterial damage. Their blood pressure, of the so-called essential hypertension type without nephritis, is apt to bob up and down readily at the least provocation. At such times of provocation their angina is apt to appear. I think this point must be borne in mind in prognosis—*i.e.*, such people, if treated properly, may do fairly well for some time to come.

TREATMENT OF ANGINAL FAILURE.

Now as to treatment. Rest is essential—mental and dietetic, as well as physical; that and the relief of the pain. Nitroglycerine or amyl nitrite, the old stand-bys, are, of course, invaluable and should always be carried by the patient suffering from heart pain of the "anginal" type. Morphine should be given freely if necessary, and when much of it is necessary coronary thrombosis is probably the underlying condition. Digitalis is generally contraindicated in the anginal type of heart failure but may help a good deal if the heart pain is due to right ventricular fatigue in mitral stenosis or to the left ventricular fatigue in chronic hypertension. A light diet, particularly light in bulk, is of great importance; quantity is much more vital than quality. Five small meals a day, with the last one the lightest, are a good program. Avoidance of taxing business cares as well as absolute omission of abruptness in physical activity must be advised. Rest will not only cause the cessation often of anginal pains but incidentally is by far the best treatment for hypertension which may or may not be associated with the angina. I have found, however, as low a blood pressure as 115 mm. systolic in marked coronary sclerosis. If syphilis is proved or likely, antiluetic treatment, begun with care, may be very beneficial.

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[*] It is my belief that heart pain is of five types—first, the so-called true angina pectoris due to coronary arterial disease and constriction with resulting myocardial anemia and exhaustion, relieved by nitroglycerine; second, aortic pain with aortitis; third, right ventricular fatigue as in chronic mitral stenosis, the pain being apical in location and not relieved by nitroglycerine but often helped by rest and digitalis; fourth, left ventricular fatigue as in chronic systemic hypertension or aortic stenosis, helped more by digitalis and rest than by nitroglycerine; and fifth, the pain in effort syndrome probably resulting from overactive heart contractions in a person with low nervous threshold. The writer is continuing a study of an analysis of heart pain.

SUMMARY.

1. There are two general types of failing hearts—the congestive type and the anginal type.

2. All the causes of heart disease are likewise responsible for heart failure of the congestive type. The commonest causes are arteriosclerosis, rheumatic fever and allied conditions, chronic hypertension, syphilis and chronic hyperthyroidism.

3. A common and very vital factor in the immediate causation of heart failure of the congestive type is auricular fibrillation. Its recognition and proper treatment by digitalis is very important. Overexertion in normal rhythm may also cause failure.

4. Heart failure of the congestive type must be differentiated from effort syndrome, hyperthyroidism, acute infections, pulmonary disease and anemia.

5. Heart failure of the anginal type is the result of coronary sclerosis in general, with syphilis sometimes a factor. In this type auricular fibrillation is uncommon, except occasionally in paroxysms.

6. Anginal failure must be differentiated from the heart pain of mitral stenosis, of hypertension and of effort syndrome, and from acute and chronic abdominal disease.

7. Anginal failure may be present in a person with no signs of heart disease and no other symptoms.

8. Digitalis is, as a rule, not indicated in anginal failure. Nitroglycerine or amyl nitrite, morphia, but chiefly rest—physical, mental and dietetic—are the therapeutic measures to be followed.

9. The amount of cardiac reserve in both types of heart failure is often amazing, the patient sometimes living for many years after the first symptoms of heart failure have appeared.

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A PRELIMINARY REPORT ON THE TREATMENT OF CARCINOMA OF THE ESOPHAGUS WITH COLLOIDAL SELENIUM.

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The anatomical relations of the esophagus are such as to make the diagnosis of esophageal diseases very difficult and the treatment even more so. Also, when one considers the relations of the esophagus to the trachea and the thyroid in the neck, the left bronchus, the arch of the aorta and the heart in the chest, it becomes very apparent that the pathological conditions in these organs may, and frequently do, produce symptoms which are referred to the esophagus. It must also be borne in mind that diseased conditions quite remote from the esophagus may reflexly produce esophageal symptoms. Therefore, before discussing the treatment of carcinoma of the esophagus with colloidal selenium, I desire to briefly mention some of the symptoms of esophageal diseases and the special methods of study employed in the differentiation of the same.

Usually the first manifestation of esophageal disease is dysphagia, but frequently a lesion may have existed for some time before this symptom appears. This is true especially in carcinoma, while in spasmodic disease dysphagia is frequently an early symptom. When one considers that the esophagus is subject to marked mechanical irritations from coarse, irritating foods, to thermic irritation from hot and cold liquids and also to chemical irritations, it seems rather remarkable that pathological lesions do not occur more frequently; also, when it is remembered that the capacity of the normal esophagus is only 100 c.c., that the lumen is quite small, that for comfort in the swallowing act we depend very much on the elasticity of the esophagus, that, if much narrowing occurs at any point, obstructive symptoms occur promptly.

While dysphagia is the first symptom to appear in the majority of cases, it may sometimes be preceded by the sensation of fullness or discomfort or even by pain, that is dull and aching or sometimes acute and sticking in character, either in the sternal or epigastric regions. However, the slightest dysphagia or discomfort referred to the region of the esophagus should call for a very careful study, always bearing in mind that the symptoms referred to may be caused by pathological lesions quite remote from the esophagus. The dysphagia which is due to carcinoma is characterized in the beginning of the obstruction by difficulty in the swallowing of solid foods only, but after the disease progresses and the obstruction increases, even liquids are swallowed with great difficulty. Finally, complete obstruction occurs when nothing will pass through the esophagus.

On the contrary, spasmodic disease is characterized by a sudden onset and symptoms of almost complete obstruction which in a short time give way to normal swallowing, to be followed again by a return of obstructive symptoms. In these cases the obstructive symptoms are quite as pronounced with liquids as with solid foods. Associated symptoms depend mostly on the degree of dysphagia present. As long as the patient is able to take food in sufficient quantity, the condition remains quite satisfactory, but when they are no longer able to obtain sufficient nourishment, they begin to show definite signs of malnutrition and anemia and, in the carcinomatous cases, cachexia as well.

A routine physical examination gives us practically no information in regard to the esophagus, for one can palpate only a small portion of the esophagus above the thorax. This portion is so deeply located that even palpation is unsatisfactory. There is nothing to be made out by percussion and the information gained by auscultation is unessential, but by this method we do sometimes hear a sound during the act of swallowing. The sound is best heard between the ensiform cartilage and the left costal margin. It is delayed or absent in obstructive lesions of the esophagus.

While the routine physical examination of the esophagus gives us no positive findings, the routine physical examination of the chest as a whole is very valuable in helping to rule out other pathological conditions which frequently produce symptoms, by pressure and otherwise, which are referable to the esophagus. The most important of these are thoracic aneurism, cardiac hypertrophy, enlarged bronchial glands, mediastinal growths and enlargement of the thyroid.

Due to the lack of information gained from routine examinations, it becomes necessary to resort to special methods of study. These are: sounding of the esophagus with a soft stomach tube or bougie, x-ray studies and esophagoscopic examination. All of these should be resorted to when a patient complains of dysphagia, however mild, or any abnormal sensations referred to the region of the esophagus.

The stomach tube is a valuable means of locating an obstructive lesion in the esophagus as it is soft and there is no danger of injuring the esophagus when the tube is manipulated carefully. No effort should be made to pass the tube if obstruction is met. By this method obstruction can be definitely located and some idea of the degree of obstruction may be gained.

The most valuable means of sounding the esophagus is with an olive bougie, passed over a silk thread as a guide. With a silk thread properly anchored in the small intestine, one may pass different sized bougies and in a measure work out the amount of obstruction present. One should never attempt to pass bougies unguided, for there is a great danger of making a false passage and puncturing the esophagus. This is especially true in spasmodic stenosis of the lower end of the esophagus in which there is pouching of the esophagus to the right, above the diaphragm. In these cases the unguided bougie does not enter the cardia but passes into the pouch which is frequently lower than the cardiac orifice, and the depth to which the tube passes gives one the impression that it has passed into the stomach. Any force used in the manipulation of the sound is likely to traumatize the esophagus and some cases of puncture have been reported. When the stomach tube fails to enter the stomach and a large bougie (passed over a silk thread guide) enters without difficulty, you may be sure that the obstruction is due to spasm and not to organic disease. Some difficulty in passing a silk thread into the stomach is experienced by most patients, but if the patient is instructed to swallow the first few feet very slowly, this will be overcome. In a few cases belladonna is helpful by overcoming the spasm. Not only can the degree of obstruction be measured but some information as to its character can be noted as well. In malignancy, one notes the marked resistance to the bougie and frequently the irritability and tortuosity of the canal, while in spasmodic stenosis there is a sort of elastic resistance which, with gentle pressure, gives way and permits free passage of the instrument. This difference in resistance is of the utmost importance in differentiating spasmodic from organic disease.

A careful x-ray study offers more in the way of diagnosis than any other method of examination. In most cases it locates the pathological lesion and gives us valuable information as to its extent and character. Before an x-ray examination is made, it is very necessary to empty the esophagus of its contents—otherwise, irregularities in outline and contour may be due to food and secretion retained in the esophagus. This is especially true in cicatricial stenosis and spasmodic disease. In cicatricial stenosis what is from an x-ray standpoint apparently a complete obstruction, may be found to be patulous after all of the food remnants have been removed. While evidence of obstruction with irregularity in contour is evidence of malignancy, it must also be borne in mind that malignancy, especially of the lower end of the esophagus, may occur without irregularity.

It is also perfectly well understood that chronic spasm in the lower end of the esophagus, while usually having a smooth outline, may show irregularity. Further, it must be borne in mind that spasmodic stenosis and carcinoma of the esophagus may occur together, and from an x-ray standpoint are very difficult to differentiate. While the evidence this method supplies is very valuable, it is sometimes misleading. Therefore, the x-ray interpretation must be made in the light of the clinical history, physical examination and the other special methods of study. Thus, I believe that to arrive at an accurate diagnosis, it is necessary in many cases to use all of the available methods of examination.

Most internists and many surgeons look upon esophagoscopy as a dangerous and difficult procedure and ofttimes unnecessary. We believe that there is very little danger and no difficulty in making an examination, if one has a thoroughly trained assistant, and we are convinced that this method of study is very helpful in differentiating esophageal diseases.

We have adopted a very simple procedure which has been quite successful. It is as follows: for two days previous to the examination the patient is given belladonna in dosage sufficient to cause some dryness of the throat. This, of course, lessens very much the secretion in the throat and esophagus and at the same time helps to overcome any spasm that may be associated with the pathological condition. In most cases, no further preparation is necessary, but in a few it is necessary to give ¼ gr. morphine and 1-150 gr. atropine, hypodermically, half an hour before the examination; also to make two or three local applications of ten per cent. solution of cocaine to the pharynx. After the patient is thus prepared, we proceed to empty the esophagus by using one of the newer suction apparatuses, to which is attached a small-sized stomach tube. This tube is passed down to the obstruction and then the contents aspirated. By this method we are reasonably sure that all contents have been removed. The patient is now seated on a low stool, the head held in the proper position and the esophagoscope is passed through the right pyriform sinus.

To make a careful esophagoscopic examination quickly one must have an assistant who is thoroughly familiar with the routine, as a faulty position of the head makes the introduction of the instrument impossible, and any attempt to pass the same is fraught with great danger to the patient. It is also very important to have the esophagus free from food and secretion—otherwise, secretion obstructs the view by coming into the lower end of the tube, making further examination futile. But if the patient is properly prepared and you have a thoroughly trained assistant, you will find that esophagoscopy is not difficult and will be a valuable aid to diagnosis in a group of cases that are sometimes very difficult.

In the clinic we have followed this simple routine as outlined and have found it, as far as our work is concerned, most satisfactory. We never make an esophagoscopic examination until the patient has had a routine physical and x-ray study. This procedure is followed so as to rule out, as far as possible, all pathological lesions that might be producing esophageal symptoms by pressure which, of course, contraindicates any mechanical manipulation of the esophagus. With these conditions ruled out, one may proceed with safety.

While the x-ray is our most valuable means of diagnosis, still this method of study cannot replace endoscopy, by means of which one may obtain a direct view of the pathological lesion. Surely, if all patients with symptoms referred to the esophagus were seen early by the endoscopist, some pathological conditions could be diagnosed at a time when satisfactory treatment could be given.

We have seen small ulcers in the mucosa that were very difficult to diagnose endoscopically. However, the endoscopic appearance of most lesions, when once definitely established, is very characteristic. These small ulcers when situated near the cardia, I am convinced, are responsible for some cases of spasm of the lower end of the esophagus, and if these cases were subjected to an early routine endoscopic study, those that were due to ulceration could be diagnosed and treated before atony and dilatation occur. When one finds ulceration going on in the esophagus, then it must be decided whether or not the lesion is a simple ulcer or one due to tuberculosis, lues or malignant disease. Cases of peptic ulcer have been reported, also those due to actinomycosis.

In simple ulcer one usually obtains a history of some mechanical, thermal or chemical irritation, but in a few cases there will be nothing in the history to indicate an injury to the mucosa. The simple or benign ulcer occurs most frequently at the anatomical narrowings of the esophagus which are also the most frequent location of malignant disease. Practically all of those due to traumatic injury from foreign bodies occur in the upper third of the esophagus, as ninety per cent. of the foreign bodies lodge in the region of the cricoid cartilage which is the narrowest part of the esophagus. The healing of a simple ulcer (unless very superficial) causes stenosis of the esophagus in varying degrees and the endoscopic appearance of the same depends on the degree of stenosis, the duration of the disease and the character of the irritant that has caused the injury. The most extensive injuries are caused by caustic alkalies.

If the stenosis is slight, the mucosa appears normal and there is no dilatation above the stricture. If the stenosis is of high degree, chronic inflammatory changes with or without superficial ulceration or abrasions will be noted in the wall of the esophagus above the stricture. Marked dilatation will also be noted. Cicatricial tissue in the esophagus is always paler than the normal mucosa. It may appear almost white. The appearance of the stricture depends upon the location of the scar. In some cases, a linear scar will be seen with a drawing-in of the wall of the esophagus. In other instances, the scar is seen to cross one side and cause a polypoid protrusion into the lumen. In many cases, the scar tissue almost encircles the esophagus, causing an annular stricture.

Esophagoscopy adds much to our knowledge in spasmodic disease of the esophagus. I believe that, in spasm of the upper end and early in spasm of the lower end, it offers more than any other method of study. By other methods it is difficult to make a differential diagnosis between spasmodic and organic stenosis of the upper end of the esophagus. An endoscopic study permits direct inspection of the diseased area which usually establishes the diagnosis.

In spasmodic stenosis occurring at the lower end of the esophagus, early in the disease, the endoscopic appearance may not differ from the normal. Late in the disease, the esophagus is very much dilated, the walls are atonic, the mucosal folds obliterated, the respiratory movements absent, the mucous membrane grayish in color, showing evidence of chronic inflammation with, in many cases, superficial ulceration.

The esophagoscopic appearance of cancer varies greatly according to the stage in which the examination is made and whether the growth is primarily in the esophagus or secondary to malignant disease in the adjacent viscera.

Jackson states that he has every reason to believe that the very early stage of esophageal cancer occurs as a leukoplakia in at least a few instances, but that the opportunities for early esophagoscopy in cancer are so rare that there is no means of determining the frequency of such an onset. He states that, in these cases, the mucosa appears as though it has been burned with silver nitrate. In other instances, an early manifestation of malignancy is sub-mucosal infiltration which gives a sensation of increased resistance in the esophageal wall. This is always the early finding when the carcinoma involves the gullet from without; in these cases the mucous membrane remains apparently normal for a long time.

As the disease progresses, other local changes are noted, as: irregularity in the lumen, obliteration of the normal mucosal creases and folds and the absence of inspiratory and expiratory movements.

Later on, definite polypoid protrusions into the lumen, with consequent marked irregularity in the outline of the growth, are noted. At this stage, there is definite congestion of the mucous membrane and, in many cases, a beginning ulcerative degeneration of the growth. After ulceration has occurred, the appearance of the ulcer is not entirely dependent upon the carcinoma, but is partly caused by secondary infection with pyogenic organisms. A malignant ulcer is usually irregular in outline, the surrounding mucosa much inflamed, the surface granular and slightly elevated. It bleeds easily when sponged. Definite areas of necrosis may be found in the more fungoid and cauliflower types of neoplasmata. Late in the disease, one is impressed by the marked rigidity of the diseased area, the tortuosity of the lumen, the ease with which bleeding occurs, the absence of scar tissue and the small amount of dilatation above the growth.

Endoscopically, a malignant ulcer may be confused with one due to lues or tuberculosis. In luetic ulceration, the following characteristics usually are seen: The edge of the ulcer is elevated and surrounded by markedly inflamed mucosa; the surface is frequently depressed; granulation tissue is not excessive and there is very little bleeding when the ulcer is sponged, although the surrounding mucous membrane may seem very much inflamed. The tuberculous ulcer is superficial, rather anemic in appearance; the granulation tissue is not excessive; the edges are not elevated; the surrounding mucous membrane is not congested and the surface does not bleed easily when sponged.

As yet thoracic surgery has done but little for cancer of the esophagus. Gastrostomy as a palliative measure prevents starvation, but a radical operation for cancer of the esophagus has been attempted only by a comparatively few surgeons and even in their hands it has not been very successful. However, with the recent advances being made in this branch of surgery, we believe that in the near future surgery will offer much to these patients.

Radium has offered more than any other method of treatment and, in the recent literature, some reported cures are to be found. Also much good has been done in a palliative way. However, with radium the problem of giving a dose large enough to penetrate the tumor mass sufficiently to destroy the cancerous cells in the outer zones without injuring normal tissue cells is still unsettled, and if the cells in the outer zones do not receive a lethal dose, they may be stimulated to greater activity, with the result that a slow-growing malignant tumor may be made to grow very rapidly.

If the attack against malignancy could be made through the blood stream, then it would be possible to bring the therapeutic agent into contact with all of the malignant cells.

Wassermann, working with mouse cancer, in 1911 and 1912, set out to solve the following problem: is it possible to influence therapeutically by intravenous injection, without injury to other cells of the organism, a rapidly growing tumor? Can one find a chemical compound which, after intravenous injection, will automatically leave the blood stream, attach itself to the tumor cells and destroy them?

The first experiments here to be reported were based upon the work of Gosio (*Zeitschrift für Hygiene*), Band 51, 1905) with natrium telluricum and natrium selenicum, which give a red or black precipitate with living cells (due to reduction of salt to metallic state), but no precipitate with dead cells.

A. V. Wassermann readily proved that local injections (most easily with telluricum) would destroy carcinoma. However, this treatment is useless for tumor of inaccessible or unknown location, and intravenous injections are needed.

At first intravenous injections (tail veins of mice) were without effect, and it was thought advisable to provide for increased diffusibility by the addition of other chemical groups. For this purpose were tried several hundred compounds with the fluorescein dyes (eosin, erythrosin, cyanosin) combined with selenium and telluricum. These compounds were most unstable and most difficult to prepare. Finally, a combination of selenium and eosin was found to be very active. This substance is soluble in water and can be injected without fatal results in amounts up to 2.5 mgm. for a normal mouse of the average size (15 gms.). Following the injections the whole mouse becomes red.

Using this dose, in mice with neoplasm, these results were obtained: doses I and II, no visible changes; doses III and IV, the tumor softened to a fluctuating cyst and began to be resorbed; after dose V and VI the tumor gave the sensation of an empty sac and rapidly disappeared.

With too rapid resorption the animals died from toxaemia. After complete cure, no recurrences developed, but with incomplete treatment, early recurrences were the rule.

This treatment was uniformly efficacious with several strains of carcinoma (3 from Ehrlich, 1 from Schilling, and 2 spontaneous strains) and was even more effective with a strain of sarcoma from Ehrlich's laboratory. Of these tumors, none disappeared without treatment. Autopsies showed a red stained mass, or detritus, or fluid with pale or colorless tissue about it.

One can easily prove by putting small pieces of fresh tissue in the thermostat in selenium solution that the selenium is reduced by the living tissue and precipitated in the metallic state (fine black granules) particularly near the nucleus where the need for oxygen is greatest, but not reduced by the dead tissue. These results can be readily repeated with local injections into carcinoma in living animals. With intravenous injections of eosin-selenium, the action is mainly upon the cell-nuclei and there is very little leucocytic infiltration. The spleen of these animals frequently shows a deposit of this pigment, of even small masses of tumor detritus which have been carried there by the blood stream. This detritus is sometimes found also in the liver and lungs of animals which are responding to repeated injections. In a few cases nephritis occurred with necrosis of the epithelium.

The authors give warning that human tumors may not be susceptible to this drug, but state that mouse carcinoma can be cured by eosin-selenium in intravenous injection.

The poisonous nature of the preparation of eosin-selenium used rendered its direct application to human beings too hazardous. This difficulty was surmounted by the production of a colloidal suspension of selenium, the toxicity of which has been shown by animal experimentation to be negligible. Thus the way was opened to the therapeutic application of the remedy.

E. Watson Williams, in the *British Journal of Surgery*, 1920-21, makes the following statement: in many inoperable cases, the results obtained with selenium compare favorably with any known method of attacking a malignant growth by the way of the blood stream and are apparently equal to those of radiotherapy. All malignant tissue is affected, however inaccessible. As purely palliative treatment, the drying of ulcers and abolition of pain is a marked advantage.

He reported eighteen cases treated, with apparent arrest of the malignant process in six. Diminution in the size of the tumor could be verified in five more. The condition of the remaining ones was not conclusive. That is, apparent arrest and relief of symptoms followed treatment in one out of three cases and, in the whole series, the majority experienced considerable benefit.

From the possibilities of Wassermann's experimental work and the recent clinical report of good results obtained by Williams, we decided to carry out some observations with selenium in carcinoma of the esophagus. We selected this group of cases because we believe them to be the most hopeless of all.

Colloidal selenium may be administered subcutaneously, intramuscularly or intravenously. When given subcutaneously, there is quite a little local reaction and the results have not been satisfactory. The intra-muscular method gives results similar to the intravenous route, though less promptly.

In the cases under observation, we are using the intravenous method. The general reaction is not alarming if one observes carefully the effect of the initial dose. The injection may be given in the office or the out-patient department of a hospital and the patient allowed to go home half an hour later. Repeated injections may be given into the same vein. If, for any reason, some of the solution gets into the subcutaneous tissue while giving the injection, the local reaction is negligible. The initial dose we have been giving is 3 c.c. This is followed on the second day by 5 c.c. If no reaction follows, this dose is given three times a week throughout the treatment. In this sized dosage there has been no cause for the least anxiety. So far, we have not given more than twenty treatments.

Following the intravenous injections in most cases there is, in a short time, a slight anaphylactic shock as evidenced by frequent pulse, weakness, nausea and occasionally a chill. There may be also increased difficulty in swallowing for a short time. This is thought by Williams to be due to an increased blood supply to the growth, and this to be secondary to a local deposit of selenium following the initial reaction which usually occurs within the first hour. There is in six to eight hours a general reaction, which continues for ten to twelve hours. During this time there is some rise in temperature, increased pulse rate, headache and general depression. Williams thinks this is due to absorption into the circulation of material destroyed by the drug. The initial shock or the general reaction which occurs during the first twenty-four hours usually only occurs after the first few injections or when the drug is given in very large and frequent doses.

In the cases under observation, there seems to be some improvement in symptoms. There has been relief from pain, dysphagia has become less marked, loss of weight has at least been temporarily controlled and, in one case, a very marked gain in weight has been noted. There has been marked psychic improvement which may be due entirely to the fact that some definite line of treatment is being carried out. However, I believe the improvement is partly due to the relief from pain which usually occurs after the first few injections. Also, the dysphagia is lessened and the patient is able to take more nourishment.

While the treatments are being carried out, careful esophagoscopic observations are made from time to time. The appearance of the presenting part of the growth is noted—first, to determine whether or not there is evidence of increased blood supply to the part; second, if any sloughing or necrosis has occurred; third, if the esophagus has become more flexible or more patulous. We try to make these observations twenty-four hours after the selenium has been given. These cases are also studied by x-ray methods to determine, if possible, any change in the size and contour of the growth and also to note whether or not obstructive signs are becoming less marked.

As an adjunct to the treatment, dilatation is carried on by bougies being passed over a silk thread as a guide. This method of passing bougies prevents injury to the esophagus, which is quite likely to occur when they are passed blindly. The passing of bougies blindly is mentioned only to be condemned.

Our group of cases is too small to draw definite conclusions from, but we do feel justified in making the statement that in a certain group of cases this method of treatment may be useful.

It would seem from the literature that so far very little has been done with selenium in the treatment of carcinoma, and especially in carcinoma of the esophagus. If further observations were made in a large number of cases, conclusions might be worked out which would serve as a working basis in the future. We hope to follow out the work in a sufficient number of cases to try to formulate logical conclusions, not claiming at the present time anything more than a palliative treatment to be used in a certain group of cases which, up to the present time, have been, if not entirely hopeless, almost so.

We do not know whether or not the results obtained from this method of treatment will compare favorably with those where radium is used, but it must be borne in mind that for certain reasons, radium is not available to all patients suffering with carcinoma. If further observations on the use of selenium will establish its therapeutic value, then we have a method of treatment which is available for all cases.

The surgical treatment is to be given preference over all other methods when the technical difficulties of the same have been overcome, but up to the present time these difficulties have been so great that only a few surgeons have perfected a technique which justifies them in attempting radical operations for carcinoma of the esophagus. I do believe, however, with an earlier diagnosis, which will be made possible when the profession as a whole recognizes the importance of an early, careful study of all patients with symptoms referable to the esophagus, that some of these patients will be referred to the surgeon in time for operative treatment. This is especially true, I believe, of carcinoma of the lower end of the esophagus. I have seen one such case in the past year. In this patient the tumor was small, situated just above the diaphragm, with apparently very little infiltration of the wall of the esophagus.

I am well aware of the fact that in many cases symptoms are overlooked by the patient or do not occur until the disease is well advanced, and little can be hoped for in this group. But, on the other hand, many times the presenting symptom of dysphagia or pain is overlooked by the physician or attributed to hysteria or some other nervous manifestation until the disease is well established and the most important time for study and treatment is passed.

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PREGNANCY WITHOUT DEMONSTRABLE CERVIX OR CERVICAL CANAL, WITH REPORT OF CASE.

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THE case reported below is unique from both an anatomical and obstetrical standpoint, and has some very interesting and instructive features.

Mrs. H., age 21. Para 1. Housewife.

Past History.—Always well except usual children's diseases. Periods of menstruation had been regular and normal since puberty, except severe pain at this time. Married about one year, and this her first pregnancy. Had severe pain at coitus from time of marriage.

P. I.—First seen when three months pregnant and physical examination showed a slight, nervous type of girl, but in fairly good health. Obstetrical examination showed external pelvimetry normal; vaginal outlet a little small, and patient very sensitive to examination; vaginal mucous membrane slightly congested and slight serous discharge in vagina; body of uterus easily palpable and softened and enlarged to about size of three months' pregnancy and in good position; careful palpation failed to show any uterine cervix or anything resembling it, or any cervical opening into the uterus; rest of pelvis seemed normal. The writer at this first examination felt a little bewildered to find a pregnant uterus and no apparent opening into the uterus. Nothing was said to patient, but she was asked to report again in one week. At this second examination, very minute search, both digital and speculum, failed to show any cervical tissue or any opening into the uterus anywhere along the vaginal walls, or any fold behind which an opening might be hidden. After this examination anatomical findings, explained to both husband and mother of patient, and in matter of prognosis, the writer stated that since she had menstruated and had become pregnant, some uterine opening must be present and that when labor started, the softening of the lower segment and the pressure of the amniotic sac, would probably dilate the lower uterine segment and, incidentally, the uterine opening. Patient had a disagreeable pre-natal period, with constant albuminuria and mild toxemic symptoms, which was only kept under control by constant supervision. Patient went into labor at 2 P. M., with mild intermittent first stage pains and entered hospital; four hours later pains and uterine contractions had become regular every 3 min. and about 2 min. duration. At this time pains were of expulsive type, and membranes ruptured spontaneously with discharge of amniotic fluid; 2 hours later nurse reported that perineum showed signs of distention with each pain, and observation confirmed this. Patient prepared for vaginal delivery and rectal examinations made, which examination showed cephalic presentation, with head in pelvis, but no cervical opening palpable. Vaginal examination now made, and this confirmed rectal findings, with the addition that it showed uterine wall about ¼ inch in thickness entirely covering presenting part, no suggestion of uterine opening anywhere. Now came the question as to what to do? First thought was to incise uterine tissue over head, which was at pelvic spines, similar to vaginal Cesarean, and deliver with forceps; this was rejected because of danger of opening into abdominal cavity or cutting large blood-vessels which might be in an anomalous position, which is not infrequent with anatomical deviations from normal, and also came the question of mechanical difficulties with a small primiparous patient. After consideration it was decided that an abdominal Cesarean would be best. Lest my failure to find an opening into the uterus be the result of some personal fault, I asked my assistant to make a vaginal examination; this was done under careful aseptic conditions, and he, also, failed to find any cervix or cervical opening.

Patient now prepared for abdominal operation. Low incision made and peritoneal flaps dissected off lower uterine segment and held out of way with retractors; uterus now opened and foetus delivered; placenta and membranes delivered and exploration of uterus from within failed to show any suggestion of opening into vagina; uterus closed with two layers of sutures and peritoneal flaps approximated over uterine wound. Palpation of uterus through general abdominal cavity showed it to be normal and descend into pelvis with normal contour, and broad ligaments joined uterus in normal position, tubes and ovaries both normal. Parietal peritoneum closed and abdominal wall closed in layers in usual way; patient returned to bed in good condition and good ether recovery.

The writer wondered at this time what the next few days would show; what would become of the normal amount of clotted blood which remains in the uterus after any delivery; how could she drain the normal amount of lochia; would the small opening which must be present suffice as far as drainage was concerned, or would even this small opening become clogged with a clot of blood or in some other way become occluded; would the usual influx of bacteria from vagina find its way through into the uterus and infect retained clots? In a word, it was impossible to foretell what would happen; I just trusted in the Lord.

For 15 hours following delivery operation no sign of vaginal discharge or staining appeared, and then came a thin, serous fluid which gradually became blood-stained; this serosanguinous discharge kept up intermittently until patient left the hospital. About 24 hours after operation patient jumped a temperature of 102.5 and pulse of 120, but examination showed nothing definite to account for it. This temperature and pulse subsided in about 48 hours, and patient made a gradual recovery. Up to the 15th day patient ran an intermittent evening temperature, which was due partly to small necrosis at lower end of incision, with sero-purulent discharge, and to a slight pyelonephritis. Patient discharged from hospital on the 22nd day in fair condition; uterus well involuted and nothing in adnexa; wound well healed except small granulating area at lower end; general strength of patient had not returned fully, but she was up and about. The baby was placed on a formula before leaving the hospital, and at discharge was doing well.

This case proves that pregnancy can take place through a very small uterine opening, in this case so small as to be invisible; it proves that nature can take care of the involution of the uterus without the usual large amount of lochia which is discharged externally with a normal cervical canal; it proves the value of early examination in all cases, for in this way abnormalities can be discovered and the condition made known to the family, who cannot thus criticize the attendant later if difficulties arise.

VEIN PUNCTURE AND INTRAVENOUS MEDICATION IN INFANTS.

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During the past decade vein puncture and intravenous medication have become so important that the physician unskilled in technique is greatly handicapped by his inability to properly perform these minor operations. About twelve or fifteen years ago it was not at all uncommon for many otherwise good men to be compelled to cut down upon some vein with a knife prior to an intravenous treatment, or even to obtain blood for a Wassermann test. Gradually, however, the technique has been so improved that such a radical procedure is most unusual, excluding, of course, some cases of transfusion where extreme anemia and a large needle at times render surgical incision still necessary. In the great majority of adults the median cephalic or basilic veins, either right or left, even if not seen, can be palpated and punctured by the experienced operator. And in those cases where, on account of extreme adiposity or small veins, these vessels cannot be entered, it is almost always possible to find a suitable one at the wrist or on the dorsum of the hand. Occasionally the veins of the ankle or foot may be punctured where no others appear. The writer, in looking back over past years, working in a hospital of over five hundred beds, where he has had supervision of routine Wassermanns on all adults and of the intravenous administration of arsphenamine and other intravenous medication by the thousand, finds that the last time skin incision was found necessary was over eight years ago.

If, however, this procedure is usually relatively easy in the adult, the reverse is equally true of the infant. Under such circumstances the arm veins are small and are often neither visible nor palpable. Examination of blood, either for culture or for Wassermann, is equally important to that in the adult, while intravenous medication often makes all the difference between future health and a handicapped body or even life itself. Some other route must be found. Following work abroad and early work in this country, the posterior angle of the anterior fontanelle was used as a guide to enter the superior longitudinal sinus. Here is a vessel relatively fixed, closely situated to the surface and of sufficient size to be readily found. The technique will not be here detailed as it has often been described, only pausing to emphasize the great need of absolute asepsis. From that time to the present we have followed this route in about four hundred infants when obtaining blood for the Wassermann test.

There have been very few cases where we were unsuccessful in our endeavors, and in no instance has any injury, temporary or permanent, been noted, following the puncture. Following this simple puncture, we began the cautious introductions of arsphenamine and neoarsphenamine by the same route. This was done in some sixty instances equally without any demonstrable injury of any kind.

In the performance of the operation, one is working in close proximity to very important and vital parts, where any minor slip in technique may be most serious. An unexpected movement of the infant's head might result in a tear of the vessel wall, with resultant intracranial hemorrhage. Any error in asepsis might be followed by localized or general infection. And in medication, any small perforation of the opposite wall of the vessel might result in the escape of arsphenamine, or whatever is being used, into the subdural space, with most disastrous results. With us, therefore, the method was, of necessity, possible only to those particularly skilled in its application, and not practical for general adoption.

Even under such conditions, we began each operation with trepidation and finished it with distinct relief when no unfavorable indication appeared.

In this uncertainty we eagerly looked for suggestions, and when the anterior and external jugular veins were brought to our attention we were only too glad to try them.

The results of the trial have been in every way so satisfactory that we now only very exceptionally have recourse to the sinus route. The technique is simple: The child is placed upon the table or bed, upon its back. A roll of cloth, often a roll of surgical cotton, or something similar, is so placed under the shoulders as to allow the head to be well directed backward. The head is then turned to one side or the other, dependent upon which jugular is selected. The operator stands at the head of the patient. This position usually exposes the vein, which can be seen just beneath the skin. Slight pressure, by the nurse, overlying the vessel just above the clavicle, renders the procedure more simple, while the fact that the infant at times cries, on account of the unusual position, often still further facilitates the ease of access.

The thumb of the left hand steadies the vessel by direct downward gentle pressure as the needle (gauge No. 20-No. 22), with the bevel edge upward, is inserted just beyond the thumb. The desired amount of blood having been obtained, the needle is withdrawn, and light pressure immediately arrests any bleeding. A small gauze and adhesive dressing is then applied. This process is usually simple in the extreme.

It is applicable during infancy and early childhood, whereas the sinus route is only available while the fontanelle remains open.

It does not have the possibilities of danger possessed by the sinus route, especially in intravenous medication.

From the psychological standpoint, a small pin-prick in the neck, often below the child's clothing, is much less fear-instilling to the parents than a puncture in the scalp or, as they often report it, "into the brain."

From all standpoints, therefore, when the usual vessels for puncture are unavailable or too small, in the infant and young child, the jugular vein offers a safe route and, when available, should be preferred to that of the sinus, *via* the anterior fontanelle.

A CASE OF SECONDARY PURPURA HEMORRHAGICA WITH REMARKABLE BLOOD CHANGES.

BY OLIVER H. STANSFIELD, M.D., WORCESTER, MASS.

This report is concerned with a case of streptococcic bacteremia, with secondary purpura hemorrhagica, remarkable for the apparent total disappearance of polymorphonuclear leukocytes from the blood.

The patient, a Jewish male of 23 years, was admitted to Memorial Hospital, complaining of bleeding from the mouth and causeless bruises of the skin. The illness had begun three weeks before with an uneasiness in the stomach, without vomiting or diarrhoea. Four days later, jaundice had appeared, and had persisted up to the time of admission. Three days before admission, causeless bruises were noted, as well as bleeding from the mouth. On the day before admission bloody urine was voided. No other symptoms were present; particularly, there was no pain. The patient had been quite well for two years prior to the onset. Two years before, he had had a mild sore throat, and eight years before, a large boil on the nape of his neck. There was no other past illness; the family history was negative.

On examination, the jaundice, swollen lips with blood coming from the mouth and a "bruise" under the left eye were noted. There was no dyspnoea or cyanosis, or undue pallor. The man was lucid. The jaundice affected the whole body; many minute petechiae were found in all parts, with several larger hemorrhagic areas, one of which, on the right thigh, had a central infected area. Development and nutrition were good. No muscular, bony or articular lesions were found. The ears were dry, with good hearing. The sclerae were yellow, the eyes moved normally, the pupils were equal, 5 mm. wide, and reacted normally. The nose was dry. The lips were swollen, but not hemorrhagic. The teeth were in poor condition, with a false tooth inserted in one alveolus, and much caries. The gums were swollen and ecchymotic, with a slow ooze of blood from many points, but without sign of clotting. The tongue was brown coated. The fauces were ecchymotic. On the neck was the scar of an abscess. The thyroid was normal to palpation. The thorax was well formed and moved normally with breathing. The lungs were clear. The heart was not enlarged, had a regular rhythm, rapid (90 to 100) rate, and clear valvular sounds. No venous pulsations were noted. The abdomen was rather scaphoid, without tenderness, rigidity or mass to be made out. The liver was enlarged neither downwards nor upwards. The spleen and kidneys were not palpable. No enlarged lymph nodes were found. Tendon reflexes and sensory perception were normal. The temperature was 101, the respiratory rate 20.

Blood examination showed 90 per cent. hemoglobin by Tallquist's scale, 4,216,000 erythrocytes, and 1700 leukocytes, with no polymorphonuclear cells or platelets to be found. The only leukocytes present were small lymphocytes. The red cells seemed strictly normal. Blood oozed, for several hours, from the puncture made for this examination.

The urine and feces contained blood, the urine being otherwise negative.

The next morning, the patient received by indirect transfusion 800 c.c. of whole fresh blood. After this, all bleeding ceased, the petechiae disappeared and the larger purpuric spots began to do so. When a tooth—the false one—was removed two days later, a clot formed but did not retract.

Other examinations showed that a gingivitis which developed, was probably due to Vincent's organisms; the teeth, after special examination, were thought to be much affected by apical root abscesses. The nose and throat were not infected. Blood culture revealed an hemolytic streptococcic bacteremia.

The further course of the disease resulted in death early on the seventh day after admission, hematuria reappearing on the sixth day. On this day, too, an embolus affected the right calf.

The white blood cell counts during this later course were 3800 on the fifth day and 3100 on the sixth. A short time before death, a count of 1850 was obtained. All counts were made from preparations from both of two pipettes.

In all, twelve stained preparations were searched but in none was a single polynuclear cell found, nor a platelet. In fact, all the leukocytes seen were small lymphocytes. No débris suggesting the possible presence of broken down cells was seen, and on looking over the counting chamber under higher powers of the microscope, only mononuclear cells were seen.

Probably related to absence of leukocytes was the appearance of the transfusion wound. This became white and necrotic by the third day, and on removal of the sutures, about 5 c.c. of transparent colorless fluid escaped.

On the sixth day, 4 c.c. of boiled milk was injected subcutaneously, but no effect, local or general, was obtained. (The blood count on this day was made some five hours after the injection).

Unfortunately, no post-mortem examination of any kind was allowed; but, in spite of this lack, the extreme degree of the blood changes make the case noteworthy.

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New England Hospital Association.

ANNUAL MEETING MAY 17 AND 18, 1922, AT BOSTON MEDICAL LIBRARY.

(Concluded from page 699)

Publicity for Hospitals.

BY DR. GEORGE H. STONE, EASTERN MAINE GENERAL HOSPITAL, BANGOR, ME.

I have been greatly disappointed, in my brief experience as an hospital executive in a small city, to learn that oftentimes the community does not manifest the interest it should in the affairs of its local hospital. I have found that the greater number of people have come to regard the hospital as a place of last resort to go to if they are sick, but do not realize the important part it plays in the life of the community. If the street railway, telephone service, or other public utilities should shut down for even a brief period, a great clamor would be immediately aroused, demanding that steps be taken at once towards the prompt resumption of service. On the other hand, were the hospital compelled, through lack of funds, to close even a part of its plant, such action would receive only passing notice, and would be the subject, perhaps, of criticism, that such curtailment of service was due to extravagance in administration, and that such a step should have been taken long before; little realizing the severe blow which such a loss of hospital service would mean to the health of the community.

This apathy, or lack of interest, on the part of the general public has been the subject of much discussion in our board meetings. How should we overcome this indifference of the community towards the hospital and its needs? The one answer which seemed to offer the best solution was, that a campaign of education of the public through the local press should be undertaken, or, in other words—publicity.

A recent periodical in its editorial columns, deals with "Publicity" as follows:

"Nothing can be got in this country except through publicity continued over a long period. The tremendous and constantly growing advertising business in this country is a recognition of this fact. No matter how excellent an article, it has got to be advertised in order to be sold in large quantities. No matter how excellent a cause, it has got to have widespread publicity in order to be 'sold' to the people of the country."

It has been noticed many times in recent campaigns for funds for hospitals or other institutions, that such appeals have been preceded by vigorous educational campaigns extending over a period of weeks, and often ceasing abruptly after the drive has stopped. To my mind we should not wait until the need is apparent and then engage in a hurried campaign of education, but we should keep our hospital in the public eye on all occasions with a series of articles in the local papers, telling about what the hospital is doing to advance the cause of modern hospital service.

The community, upon which the very existence of the hospital often depends, is entitled to know, and should be told, everything about the institution. How is the hospital dollar spent? What are its needs? Why is a new laundry, power plant or nurses' home necessary? How much real charity work is the hospital doing? Are the trustees living up to their trusts? These are all questions in which the public is vitally interested, and may be properly asked by the community which the hospital serves.

How shall such a publicity campaign be conducted? First, the coöperation of the press must be obtained. This is not difficult, because most papers are glad to publish anything that will be of benefit to the community in the development of local enterprises.

If nothing in the way of publicity has ever been done, we must start at the very beginning, possibly with articles dealing with the founding of the hospital, and following up with the story of its growth and expansion. The territory from which the hospital draws its patients, and the particular need for hospital service in this territory, should be set forth. Articles dealing with the value of the laboratories, the x-ray, and the training school for nurses; the important places these occupy in relation to the care of the patient and diagnosis of disease, should receive attention. All these may be used as leading articles appearing at least once a month. Between the publication of these stories, news items, such as the purchase of new equipment, the staff meetings, and general hospital activities should be given out from time to time, always keeping the institution before the public.

It is rather difficult, at least for myself, to write such articles so as to give them the appearance of news; so I have found that the best procedure is to ask for an experienced news writer to come to the hospital, and give him the facts, and let him write the stories, because newspaper men know how to present the details in the best way so that they will make interesting reading for the public.

It is needless to say that everything which is published must be absolutely correct, so as not to give wrong impressions. If the hospital is carrying a deficit, say so, and tell why. A deficit may be made to represent the hospital's greatest asset, if presented to the public in the proper way.

In our publicity work we should not lose sight of the fact that newspapers are always on the lookout for anything sensational. They want to know all about the latest accident cases, transfusions, and details relating to surgical operations. In this respect, we must remember the confidential relation that exists between the hospital and its patients, and we should be very careful not to give out any information which would in any way destroy this relationship, without first obtaining the permission of the patient or his responsible friend. Names of physicians should also be withheld in such instances, in order to avoid undue publicity or violating the code of professional ethics.

National Hospital Day, perhaps, affords us one of our best means of publicity. On this occasion the hospital may hold "open house," and invite the public to come and see for themselves the actual work it is doing. Many people took advantage of this opportunity in our city on May 12th, and I am sure the hospital made many friends on this occasion, because they had no idea of what modern hospital service means to-day. They developed a different viewpoint altogether of what hospitals are doing along the lines of education of physicians, nurses, and the public, and I am sure the hospital will receive stronger support, if the need for financial assistance is ever presented.

To sum up: There is often a general lack of interest in some communities towards hospitals and their needs. The best way to overcome this, is through intelligent campaigns of publicity and education. These campaigns should be started, not merely for the purpose of appeals for funds, but should be kept up indefinitely; because the hospital owes this information to the public to which the institution looks for its support. Such campaigns are bound to result in a better understanding generally of the public towards hospitals, and, in the end, the hospital will be assured of better public support.

Dr. Howland: This is a very timely paper, and very interestingly presented. Hospitals have hidden their light under a bushel. They should let the community know what they are doing, taking due care that there shall be nothing sensational in the news.

Miss Haskell: I should like to tell of our publicity work with reference to furnishing our new home. We had thought of appealing for funds in a regular campaign, but the city was in the midst of a textile strike, so it seemed undesirable to follow that method. We have a promising young minister there, and I told him a few things that I should like to have put before the public as to the needs of the hospital. This young minister wrote two columns for our local papers, one daily and one weekly, regarding the needs of the hospital. The response was immediate and gratifying. Friends of the hospital—and we have a good many— came, not to give what they wanted to, but to ask what we wanted them to give. And the result is that the entire children's department has been furnished by donation, and the living rooms and sitting rooms and dining rooms in the nurses' home have been furnished by donation; and we are constantly having small amounts, $10, $25, or $30, to use for whatever purposes the superintendent wishes. We had in the past avoided publicity; but we have found that publicity is very much needed in our hospitals. People are interested in hospitals, and in everything that goes on in them, sometimes to the detriment of the hospital. If we could only put aside the things that should not go into the press, and have only the things that we most want put into the press, it would be a perfect Godsend for the hospitals to be in the public eye as much as possible.

Miss Eastman, Eye and Ear Infirmary: I think about eight or ten little books were published, each one bringing in some little story about the Eye and Ear Infirmary, and asking for a donation. Last year that yielded between nine and ten thousand dollars. This year we followed that up by sending a note to contributors, reading something like this, "Last year you contributed—so much,— and we request that you do the same this year." That has been going on about a month, and we are getting very good results. We are also sending out letters to people who did not give last year but who had contributed preceding that time. The Publicity Committee are writing a personal letter.

Q. You employed someone to write the little books; didn't you?

A. Yes; some of the stories were written by trained novelists, for which they were paid.

Dr. Brown: In our town the editor of our leading daily is very good about publishing anything we want published, and about writing up what should be written; though he is a little reticent about publishing anything as to the trustees not living up to their duties.

Dr. Sexton: With the inauguration of National Hospital Day a year ago, we published a little pamphlet, a four-page leaflet, giving in detail the organization of our hospital, the type of work we were doing, the per capita cost, the number of operations we did daily, or for the year, the number of patients that we had treated since the establishment of the hospital, free and otherwise, the daily operative cost of the entire institution, with other items I do not recall now. We placed a little receptacle for these leaflets at the front of the desk, and put a placard above it, saying "Facts which you should know about the Hartford Hospital. Take one." We have changed the nature of the information given on those leaflets about once in six months. About 200 of these leaflets are taken daily by visitors to the institution. Just how much good it does, I don't really know. It certainly sends into the community a certain amount of information that would not reach the people otherwise. We have never solicited contributions through that channel. As a matter of fact, we have only once gone to the public for funds. We asked two years ago, for half a million dollars, which they gave within a week. We shall not ask for another contribution for two or three years; then we expect to go back to the public, and ask for a similar amount. In the meantime, we feel that it is not wise to ask for contributions for any purpose whatever. These leaflets and other information we have been able to distribute has been purely along educational lines. We think keeping the public informed as to what we are doing will, when the time comes, be worth more to the hospital than it costs. We did not make a great effort at the last "Hospital Day," not as great as in previous years, when we had a window in one of the large department stores, and gave a lot of demonstrations on giving treatments, handling patients, nursing problems, etc. Our superintendent of nurses thought—and I think she was right—that that attracts curious people only, largely children and people who are morbidly curious. I don't think a demonstration in a store window ever attracts the class of people you want to bring to your institution. So we omitted that this year. We advertised for a few days, in the local papers, that we would give a radio concert in our ward on Hospital Day, for the benefit of patients and their guests, and we extended the visiting hours an hour longer than usual, in order to give this concert; and we had a house full of people. Of course, the radiophone is very popular now, and a great many people have never heard a broadcasted concert given. I think it was curiosity to hear the concert, more than to learn about the hospital, that brought the crowd. Anyway, we had a lot of people who would not have come to the institution otherwise.

Dr. Howland: About what is the expense of a radiophone suitable for hospital use?

Dr. Sexton: I should not advise, knowing what I do, any hospital to purchase an outfit. I have just read, to my dismay, this morning, that an invention has recently been made that would relegate all apparatus we have recently purchased, and make it of no use whatever. So I advise waiting until the industry is more stabilized. The cost of an apparatus such as ours, where we have a central receiving station, and wires extending from this station to all our public wards, the same as the telephone, each having its own horn reproducing the concert, the same as a graphophone does,—the cost, with eight extensions, with the present type of apparatus, is about $1000. Incidentally, the Hartford *Times* presented it to us. They took up a collection for five hospitals in and about Hartford. Two declined the outfit; so the entire donation which the Hartford *Times* collected will go to the three institutions. I think it creates a good deal of interest in a local paper when it takes up a contribution for hospitals. It was a purely voluntary effort on the part of the newspaper people. I think that radio apparatus will be very much cheaper in a little while. There are a number of inventions not yet placed before the public that will reduce the cost of it considerably, because of patents which will be superseded, or which will expire shortly.

During the afternoon we had put on our own concert. The amount of commercial business transacted during the day, the additional noises, etc., which naturally are picked up, same as the concerts are, made any attempts in the afternoon unsatisfactory. The novelty of the thing of course, added a good deal to it, and we felt that it was worth while. The graphophone gives a better piece of music than you can get from a broadcasting outfit, except late at night, too late to give to your patients. The novelty of the thing is more than the actual enjoyment received from the concert.

Dr. Hersey: We employ a woman who is a newspaper writer to handle the newspaper situation. The different newspapers used to call us up three or four times a day to obtain news, and when we were unable to give them sufficient excitement to make headlines, they became peeved; so we found the best way was to employ this woman. She tries to get hold of the accidents and things of interest to newspapers. If we have any particular news we think would be of interest to the public, she puts that in the newspapers for us in a manner satisfactory to the papers.

In regard to the "hospital window," the hospitals about New Haven made a combined effort to have hospital windows during Hospital Day. We ran a demonstration on nursing technique, etc. This year I wanted to see what the situation was, and I watched the people who stood before the windows. I think the group interested this year were of a higher grade than those who had been interested in other years. I was quite strongly impressed with the fact that most of the people outside the windows, watching the demonstration, were young girls, who would make good nurses.

Dr. Parkins, Peter Bent Brigham Hospital: I think that Dr. Stone's paper is very apropos. Hospitals are passive institutions by tradition. No one can justify the investment of millions of dollars and the use of intelligent personalities without some definite and active program being carried out. The scope of the work is varied and it requires able minds to advance the standards in a steady manner. The service rendered to a community cannot be greater than it is willing to receive. Here is where advertising has its main function in teaching the community and individuals. Leaders in Hospital administration should have something to offer and be active in placing their services before both the professional and lay public The idea of considering a hospital simply as a boarding house for sick people is medieval and cannot be tolerated in this day. A well planned advertising campaign will be a real benefaction to the community and the hospital. It is obvious that hospitals cannot take over all the methods and devices used in the commercial world, but many of the ideas can be used. Advertising must be considered in its broadest meaning in hospital work. A well built and well managed nurses' training school is a very real advertisement; courteous service, a capable dietary department and other departments well run are all sources of material for telling of an institution's worth. Another very interesting feature is the hospital as a health center. Why should other similar organizations be created alongside of a hospital? I believe that it is along the line of preventive medicine that the hospital has its greatest field in the future. Dr. Stone has given us some concrete suggestions, and I hope that many will act on them.

Dr. Howland: Mr. Borden, can you tell us how to get our needs before the rich people, so that they will remember us in their wills? Mr. Borden writes wills for people.

Mr. Borden: Of course people making their wills are mostly older people who have grown up with certain pet charities, so that the older institutions are the ones most frequently remembered in wills. If you are looking for testators, the best thing to do is to catch the young people. In that connection, it is interesting to see how things work together in a hospital proposition. The construction of the nurses' home, and the use of the nurses' home, and back of it all is this idea that the training school for nurses has entirely changed; it is rapidly getting to be on a par with the girls' boarding school and the girls' college, and the product of the nurses' training school is a product that is coming more closely in touch with the social activities of the world. In other words, a necessary part of the education of the competent nurse today is education to meet people socially, people of intelligence, and to be able to talk with them in a manner to which they are accustomed. So the nurses' home should be a place of cultivation, as well as a place to learn primarily the arts of nursing; and, with that in view, we should provide social entertainment for the nurses in the nurses' home, by endeavoring to get them to provide social entertainments themselves. One way to do it is this: We get some of the young ladies connected with the women's board of the hospital to advise and assist the nurses in the ways of entertaining by teas, plays, and concerts, minstrel shows, and other things such as young girls in college are quite accustomed to. These young women who come into the training school to assist the nurses immediately get in touch with the hospitals, and by and by some of them are married and begin family life, with a knowledge of the hospital that they never could have got in any other way than by contact. So when you start a good thing, it reaches out in all directions. Of course, a great many of the hospitals in Boston advertise constantly the needs of the institution, and there is a reminder there, when a person is about to make a will, that the needs of the hospital are great, and that they are worthy objects of bequest. I think that is a very good plan, because people making wills can be thus given suggestions as to the proper distribution of their estate. I think more publicity in this direction would be desirable. I think a greater knowledge of the way the hospitals work would be desirable. It might be well for people to know what to anticipate when they went to a hospital. It seems to me that I should like to know what kind of accommodations I was to have, what I should carry with me, and that it would be worth while for someone who could write well to get out a little standard pamphlet about the needs of a guest at a hospital. It should be well written, and could be changed to meet the needs of different hospitals. Trust companies and commercial institutions do things like that. The general advantage of the hospital, and what might be expected could be written, and then specific things, rooms available, etc., incorporated by various hospitals. I think it might make an interesting publication. People are interested in patients, and would like actual information about what happens to the patient when he gets there. People pick up pamphlets and read them; and if you start in with a personal question, you could get them to read the whole proposition. It does seem to me that some bright chap or lady could start in and write up the general proposition of what should be in hospitals as a basis for publicity.

Man: In view of the increasing number of estates now being handled by trust companies, it seems to me that the trust offices should be made fully acquainted with the work of hospitals that might be of value to us.

One source of publicity with us has been the giving of hospital talks before local organizations, such as women's clubs. One prominent citizen said that he had had the impression that the hospital was a private banking institution; he said, "Hereafter, you can have any of my money when you need it."

Woman: We had an interesting campaign in Providence. The trustees decided that they must have a new building. At first they planned for a hospital of 100-bed capacity; then they decided to make it a hospital of 250-bed capacity, and to put it up to the people of Providence. They made a very careful statement, giving only facts, which they submitted to the people. They started their campaign, and the first published article was brought out in February. We had the coöperation of a very reliable paper, the *Providence Journal*. The work was undertaken by teams of 800 men and women. The object was to get one million dollars for building, equipment, and endowment. At the end of seven days they had $1,225,000.

Miss Metcalf, Lewiston Hospital: It may be of interest to hear what a small hospital has done. We have a board of directors. A little over a year ago, the oldest director of the hospital, and his wife, said they would give a nurses' home, provided the present directors would decrease the debt of the hospital at least $60,000. We had a drive by the ordinary methods, and two of our directors gave up quite a number of weeks visiting in three counties, in Androscoggin, Franklin, and Oxford Counties. They visited prominent men in these counties and solicited funds, and in a very short time the sum of $60,000 was promised; and our nurses' home was given by this director; also a hospital dispensary. Since then these men have continued the publicity work. They not only present the need of money, but give facts regarding the work of the hospital, and what it might do in the community; and the newspapers have contributed space for advertising the hospital and its needs. This has been productive of good; we have had more applicants for the training school, and an increasing interest in everything pertaining to the hospital.

Dr. Howland: Dr. Sexton said he had taken a leaf out of Mr. Statler's code. Mr. Statler's attitude is that his guest is always right. Dr. Sexton tries to make it seem that the guest at his hospital is always right; tries to avoid controversy. He says that if you send out a patient satisfied, that will be a means of getting the right kind of publicity. If he goes out dissatisfied over some small matter, such as an item on his bill, he is likely to give the hospital publicity, but of a very undesirable kind. Mr. Statler says "Our guests are always right."

QUESTION-BOX.

Signed Statements.

Q. Is it good form, when a patient is admitted to the hospital, to ask for a signed statement as to that person's responsibility for bills contracted? If so, what form can be used to best advanage? Is it good form for a hospital to sue a person for his bill? Is it customary to charge interest on a bill of long standing?

Dr. Sexton: We require someone responsible—it does not matter who it is—to sign a guaranty of payment of the bill of every patient admitted to our institution. They don't object to it. They come to us for service which they expect to pay for, and there has been, during my time as administrator, no one who objected to pledging himself to pay just debts. In the matter of collections, I don't believe we have had to sue anyone; but we do turn our accounts over, after a definite time, to a collecting agency. We have three form-letters which we send to them, after sending two statements of the account to which they have made no response. Then we send the first letter, which is very mild and as polite as we know how to write, calling attention to the indebtedness. If we don't hear in ten days, we send a letter a little bit stronger. If they pay no attention to that, in ten days, we send a third letter, saying, "We wrote you, on such a date, calling your attention to the balance due at the hospital," and stating that unless immediate payment is made, the account will be placed in the hands of our attorney for collection. Notwithstanding the unemployment situation which has existed in the past year, we have not charged off any accounts which we would otherwise not have charged off,—no bad accounts. Our outstanding indebtedness last year was less than 5 per cent.

Dr. Howland: Haven't you a law in Connecticut that helps you in that matter?

Dr. Sexton: Yes; but we have never had to use it. We got it through the legislature at the last session. This law applies to people who leave hospital bills unpaid in the same way that the law applies to hotel bills; imposing a fine of $50 or thirty days in jail on anyone who hasn't satisfactorily adjusted their hospital account. It doesn't say they must pay it, but "satisfactorily adjust" it. It works.

Dr. Howland: We have a little contract form that we asked to have signed by the private patients, or those unable to pay regular rates, or those whose bills are to be paid by a relative, or someone who is to be responsible. We keep one copy and give the duplicate to the person who is responsible. This is a reminder that they understood what they contracted for. From private patients we intend to collect their bills, if possible. Our attorney thinks it is very desirable to put this contract in their hand and keep a duplicate, so that they cannot deny the agreement or say that they misunderstood. We formerly put down on the admission blank the amount the patient agreed to pay; now they sign their name. I should be glad to send a copy of our form of contract to anyone who would like it.

Hospital Records.

Q. What is your custom in regard to allowing patients' hospital records to be inspected and used, first, for court cases, and, second, for industrial accident hearings?

Dr. Howland: The practice is definitely defined by law in this state. We have no choice in the matter.

Mr. Borden: You need not produce records in court unless you get a summons. Generally it doesn't pay to refuse, because you have to do it sooner or later, and may as well do it in the first place.

Dr. Richardson: The insurance companies and various people wanted our records. I tried to get a ruling from the city solicitor, but he didn't give any. I inspect each record, and if there is nothing in the record confidential or detrimental to the patient, we let them look it over. If there is something we think it is not best to show them, we give them such facts as we think proper.

Dr. Faxon: At the Massachusetts General we have developed quite a routine method of handling this thing. The principle is that the plaintiff and the defendant are both entitled to a copy of the records. The plaintiff, if represented by a lawyer, must give that lawyer an authorization, and in that case we give them a copy of the record. A clerk is employed who does nothing else but copy these records. She is instructed, and, of course, at first you have to watch what she puts down very carefully. But after she becomes accustomed to what to put in and what to leave out, she makes very good copies, without much difficulty. Before they leave the hospital, all these records are inspected by someone connected with the administration. The charges vary from fifty cents for a certificate to $3 for a copy. If the record is of great length, an additional charge is made. The reason we have taken this stand is because the records may be summoned into court, and we thought we might as well let them have the copy as to compel them to summons the hospital to bring the records into court, and cause the hospital the trouble of sending someone to carry the record. In addition, we many times have to send a man to court. He is not a doctor, but simply a representative of the administration. He reads the record; not being a doctor, he volunteers no opinion on what is in the record, except to tell how it was obtained. Industrial accident cases are handled just the same, because in this state the Industrial Accident Board has the powers of the court in summoning witnesses.

Dr. Howland: This afternoon the programme is to visit hospitals in Boston. I am sorry I can't tell you about some particular new thing in every hospital that you might want to see.

The South Department of the City Hospital has new isolation wards, with cubicles and modern sterilizing and utility rooms. The Children's Hospital, on Longwood Avenue, has a new ward. The Massachusetts General private ward, the Phillips House, is still in the very forefront of modern hospital construction. The Hospital for Women and Children, on Dimock Street, has a very large obstetrical service and a very interesting obstetrical ward. The Free Hospital for Women, in Brookline, has a new wing. The superintendents have not been asked to provide special entertainments; but they have all expressed themselves as very glad to welcome you if you care to visit them.

Report of the Committee on Nominations called for by the Chairman:

Dr. Richardson: The committee has had the usual difficulty in arriving at a decision; there are so many men and women well qualified for the positions. They submit the following:

For President: Dr. Louis A. Sexton of Hartford.

For Vice-President: Miss Mary M. Riddle of Newton.

For Secretary-Treasurer: Dr. N. W. Faxon, Boston.

Trustee for four years: Dr. Joseph B. Howland.

Trustees for two years, to fill the vacancy created if Dr. Sexton is elected: Miss Rachel G. Meltcalf, Lewiston.

On motion made and seconded, it was *Voted*, that the Secretary be instructed to cast one vote for the election of the officers nominated.

The ballot being cast by the Secretary, the officers nominated were declared duly elected.

Dr. Sexton: I am deeply grateful for the honor given me; but I feel very keenly that there are a good many older members of the Association who could do a good deal more for it than I. I shall expect to call on any or all of you for assistance, which I hope will be forthcoming.

(The retiring President was asked by the newly elected President to keep the chair for the remainder of the meeting.)

There being no further business, motion for adjournment was declared to be in order.

On motion moved and seconded, it was *Voted* to adjourn.

Adjourned at one o'clock p.m.

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Medical Progress.

REPORT ON PSYCHIATRY.

BY HENRY R. STEDMAN, M.D., BOSTON.

DEMENTIA IN YOUNG CHILDREN.

Zappert[1] reports two cases of infantile dementia from his own practice, and also gives condensed histories of five further cases communicated to him by T. Heller, who was the first to call particular attention to this form of dementia (1908). All seven cases are so similar that there can be no doubt about their belonging to the same group. After a period of normal or approximately normal development, the typical symptoms of the condition begin to appear in the third or fourth year. At first only peculiar inaccuracies of pronunciation are noted, but later speech becomes quite indistinct. In every case great unwillingness to speak developed, until finally spontaneous speech ceased entirely; also the understanding for spoken language was gradually lost. Restlessness, an excited condition, and sometimes hallucinations were common manifestations. Fear states were noted in some instances. The dementia continued to increase and ended in a few months in complete idiocy. The facial expression did not become idiotic, but remained, as a rule, rather intelligent. There were no bodily symptoms connected with the nervous system—no motor disturbances. The condition finally became stationary without impairment of the physical health. One of the children was the son of a physician. The diagnosis at first had been hysteria, but the course of this and other cases confirmed the progressive dementia. All were boys but one in this series.

NEUROPATHIC MANIFESTATIONS IN CHILDREN.

Eight cases showing marked evidences of the presence of the so-called neuropathic diathesis in infants and children are presented by Shannon.[2] In four of these cases, definite evidence of the exudative diathesis was also present, while in another case there was a positive history of such a condition in the past. The remaining three cases gave no evidence suggestive of the presence of an exudative diathesis. All the patients showed the presence of protein sensitization by cutaneous tests. All showed definite relief from the nervous symptoms on the institution of specific therapy directed at the proteins to which they were sensitive. In all but one of the eight cases the proteins concerned were those of foods contained in the dietaries of the patients. In one case animal emanations of pollen proteins might have played a part. In one case the nervous symptoms could be relieved or brought on by the exclusion from or the addition to the diet of the food to which the patient was sensitive. Evidence is presented showing that anaphylaxis is a sound, theoretic basis for the explanation of many of the symptoms of the so-called neuropathic diathesis.

NERVOUS AND MENTAL DISTURBANCES IN HEART DISEASE.

Jaquet[3] mentions, among others, headache, inability to sleep; the patient cannot find any comfortable place in bed, or his cold feet keep him awake even with a hot water bottle. A brief tendency to dizziness and syncope is common, even in the young. A sudden transient inability to move hands or feet has also been observed, but it lasts only a few minutes. Lack of attention, a change in character, and actual psychoses are not rare. He warns that the physician may be responsible for them, by his heedless use of the terms "heart failure," "calcification of the arteries," etc., thus frightening the patient. Pleuropericarditis in one woman had left cicatricial adhesions which were mistaken for grave organic disease, and the patient was warned to beware of all efforts or heart failure might result. She stayed in bed for nine months, not lifting a finger, before she could be convinced that she was not in grave danger. Then she got up and resumed an active life. Nervous dread and depression interfere with the action of heart tonics. Often, in heart disease, psychotherapy is the main thing. It frequently happens that a stay in a sanatorium is of great benefit. The patient loses his dread and restlessness when he knows that a physician is at hand day and night. This frequently tranquilizes permanently. In conclusion Jaquet warns against medicinal intoxication; he witnessed in two cases the development of a psychosis after the therapeutic administration of caffein.

TREATMENT OF HYSTERIA.

Speaking of the treatment of hysteria, Head[4] says: If possible, the patient should be removed from the usual surroundings, and new influences brought to bear. An attempt should be made to switch the dissociated part into the continuity of the patient's mental life. Every form of persuasion should be exercised to convince the patient that he is able to carry out the action he is convinced to be impossible. Never bully him or accuse him of dishonesty. No one is a greater failure than the medical officer who wishes all hysterics could be shot at dawn. On the other hand, the firm diplomatist with subtle and demonstrable reasons why the patient can stand, walk, or feel, often produces miraculous cures. But it must never be forgotten that in a large number of cases, especially in civil life, removal of hysterical symptoms is only a prelude to the discovery of an anxiety neurosis. The causes for the suppressed emotion must be investigated, or the patient may be left in an even worse condition than that in which he was found. Do not harm the patient by antitherapeutic suggestion; carefully prune conversation, and do not think the diagnosis aloud. Avoid such words as "neuritis." Some diagnoses, such as "floating kidney," are more deadly than the disease. Avoid thinking in terms of surgery when dealing with functional neuroses. At the same time the most brilliant conversation is useless with an hysteric.

MENTAL INFLUENCE ON GASTRIC SECRETION.

Heyer's[5] research during hypnosis, a fine stomach tube in place, with continuous aspiration, demonstrated a remarkable variability in the acid content of the gastric juice in the same person at different times after both test meals and suggestion. The suggestion of pain, danger, recalling of war happenings, arrested at once the gastric secretion in nearly all the subjects. The suggestion of agreeable events, a spring day, winning money in a lottery, etc., never had the opposite effect, but had the same arresting influence, only it occurred more slowly. His research thus has demonstrated the law that any diversion of the mind, painful or pleasurable, from the act of eating, checks the secretion of gastric juice. The effect is more pronounced, the stronger the mental impression. In one patient with pure mania the gastric secretion was found constantly normal. In all the subjects, the stomach secretion increased at once in large amounts when a nutrient enema was injected. The distention of the rectum evidently promoted secretion in the stomach by reflex action, as all psychic factors were excluded, and the reaction occurred too promptly for the nourishment to have made its influence felt. The findings in this line suggest the necessity for giving nutrient enemas a drop at a time, with gastric ulcer, to avert this reflex action from distention of the rectum. His tables show, for instance, a drop from 10 or 20 or 18 to 0.5, 2 and 1 in the amount of gastric juice secreted under the suggestion of bombing, a railroad accident or the like. The drop was from 10 to 3 under suggestion of good news. Atropin given before or with the sham feeding checked secretion, but it did not seem to influence it when not administered until the secretion was well under way.

THE ENDOSECRETORY GLANDS IN PSYCHIC AFFECTIONS.

In 25 patients with mental disease Fauser and Heddaeus[6] examined the thyroid, the suprarenals, the hypophysis, the genital glands, and in some instances also the thymus and the epiphysis. Seven patients belonged to the dementia praecox class; 12 were epileptics; 5 were imbeciles, and there was one case ot senile dementia. In the thyroids of such patients goitrous degeneration was frequent; other changes were occasioned by concomitant affections (tuberculosis). The suprarenals showed, in part, senile changes and, in part, findings due to tuberculosis. In the hypophysis, there was found in various psychoses, a predominance of the basophiles over the eosinophiles in the anterior lobe, which is exactly opposed to the findings in healthy persons of corresponding age, and may possibly be regarded as a sort of retardation of function of the hypophysis. The genital glands, the thymus and the epiphysis showed no typical changes. It may be stated that only in exophthalmic goiter could infantilism of the endocrine glands be demonstrated histologically—not in psychoses such as they investigated. More extensive investigations may bring to light characteristic changes.

SCHIZOPHRENOID CEREBRAL SYPHILIS.

Urechia and Rusdea[7] cite authorities and their own experience to confirm the finding that the symptoms of dementia praecox may be observed in the course of syphilitic disease of the brain and general paresis. These schizophrenoid symptoms may be transient or durable. In one case, from onset to death, the clinical picture was that of dementia praecox through the entire six-year course. Cases are known up to twenty years' duration, and lumbar puncture or necropsy first cleared up the diagnosis. In some of the cases both the Wassermann reaction and the spinal fluid findings became negative during a stationary phase. Catatonia is evidently the result of a certain injury of a certain part of the brain, but the morbid agent causing the injury need not always be the same.

GENERAL PARESIS IN THE AGED.

The process of involution already installed in the elderly imprints special features on progressive paralysis when it does not develop till late in life. The infection of 21 of 84 such cases in Jauregg's[8] service at Vienna was of from twelve to over forty years' standing. In 27 per cent. of the total cases the mental derangement was of the persecution type. This paranoid form of general paresis seems to be peculiar to the aged. The optic illusions often took the form of animals, although there was no alcoholic basis. The hallucinations occurred mostly nights, and were often an occupational delirium. In short, the senile general paresis bears the impress of senile psychoses in general.

NONSPECIFIC TREATMENT OF GENERAL PARESIS.

Fischer[9] reiterates his assertions that with sodium nucleinate we can count on an actual cure of a certain proportion of our cases of general paresis. His thirteen years of experience have shown 7.5, 16, and 56 per cent. cured without relapse in three series of forty, eighteen and sixteen patients with general paresis. Only 50, 40, and 8 per cent. in the same groups failed to show any benefit. He has found specific treatment as for syphilis entirely ineffectual. The prospects are better the younger the patient, and the shorter the duration of the paresis. Of all the means to induce the therapeutic leukocytosis, nuclein has given the best results to date. He declares in conclusion that a course of leukocytosis treatment should be given as a routine measure in prophylaxis of paresis to every syphilitic on concluding the specific treatment for the syphilis. He compares the results of treatment of paresis with tuberculin or by inducing malaria, or other means to stimulate leukocytosis. He advises repeating the course annually. In twelve cases all under 40 in which he gave over 10 gm. of nuclein, a cure was realized in 58 per cent. He gives the minute details for the treatment with which he has been successful. He begins with 2.5 c.c. of a 10 per cent. solution of sodium nucleinate injected subcutaneously in the arm or between the scapulae. After two or three days, 3 or 4 c.c. are injected in the other arm. Increasing the dose in this way, he reaches 10 c.c., and then the series is begun anew from the first. Three or four such series constitute the course. Fischer is professor of dermatology at Prague.

TREATMENT OF PSEUDOTABETICS.

It is often simple enough, says Kouindjy,[10] to mistake a pseudotabetic for a genuine case of tabes, for the symptomatology in both instances is frequently very similar. Occasionally, this similarity extends even to a confusion in the findings of morbid anatomy. In spite of this, pseudotabes is a pathological entity easily distinguished from true tabes on account of its etiology, and, especially, of its course. Pseudotabetics are characterized by their tendency to complete cure, by tenderness on pressure of muscles, and by the absence of the Argyll Robertson pupil. Further, they can be distinguished by the different topographic distribution of anesthesias, which here diminish from the distal end toward the root of a limb, whereas in tabes they always show a radicular distribution. The treatment of election of pseudotabes must comprise treatment of the etiologic cause and also symptomatic treatment. Physiotherapeutic treatment occupies a predominant place in the second instance. Re-education must be considered the most rational measure, being calculated to combat at the same time both the motor disturbances of progression and the psychic state of pseudotabetics.

MENTAL HYGIENE AND THE INDUSTRIAL WORKER.

Campbell[11] believes the mental health of the industrial worker to depend upon the complicated interplay of the individual personality, the specific conditions of the industrial task, the economic factor, the domestic and general social environment. When dealing with the disorders of the individual worker, and of groups of workers, it is not always possible to isolate single symptoms, and supply specific remedies, medical or social; and one must be prepared to make a very detailed analysis; and the remedies may be of slow evolution. So far there is not available enough well-studied material for useful constructive suggestions to be made; to gather such material is a task of immediate importance. The development of an enlightened public opinion on these topics would be a most important contribution to the mental health of the community, and to social and economic stability.

The attention paid during war time to the mental health and morale of those engaged in the business of destruction is no less necessary during peace time for purposes of construction; mental health and good morale are as important in peace as in war, and to muddle along in peace may be as disastrous as to do so in war.

MENTAL HYGIENE AND MEDICAL AND GENERAL EDUCATION.

Buzzard,[12] in a presidential address, urges that the growth of mental hygiene be promoted (1) by no longer misnaming mental disorders as nervous. It is perhaps time to be courageous and call institutions hospitals or clinics for minor mental disorders. (2) By getting rid of the confusion between ethical and medical principles as they affect health. (3) By teaching elementary principles of psychopathology, and psychotherapy to students in order that the general practitioner may take a prominent part in maintaining the mental health of individuals; these subjects, being more important than much that the student is called upon to know, should be introduced into the syllabus for examinations and questions set upon them. (4) By obtaining general recognition for the multiplicity of factors concerned in producing mental as well as other disorders. (5) By giving due prominence to fatigue as a factor in psychopathology, to rest in psychotherapy. (6) By encouraging thinking as an important preventive measure.

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Book Reviews.

Advanced Suggestion (Neuroinduction). By HAYDN BROWN, L.R.C.P., etc., Edin.; Fellow of the Royal Society of Medicine. Second Edition. 387 pages. New York: William Wood & Co. 1922.

In the fast increasing literature of psychotherapy, a number of special methods have been advocated as practically indispensable in the treatment of functional nervous disease, borderline states, etc., and extravagant claims advanced. In fact, this field, more than any other branch of medicine, seems to offer writers unusual temptations for departing from an impartial, conservative, not to say scientific, attitude of mind. This book is an extreme example of this tendency.

Neuroinduction—a term which the author makes use of in preference to the main title, "Advanced Suggestion"—he lauds as "the first technique to contain a recognizable relaxation as apart from natural sleep and hypnotism," maintaining that "such a form of relaxation was never scientifically known or expressed before." In "neuroinducting," he explains, the physician demonstrates both to the sensations and understanding of the patient (who, mentally and physically relaxed, is in a recumbent position, with the eyes closed) such clear explanations, reasonings, etc., as he deems necessary. The author also makes much use of "manipulations," the nature of which he does not disclose. Under the induction theory the term psychoanalysis is abandoned, as "one that can bring only unhappy recollections," and the plainer and simpler one of "thought analysis" adopted. The author disagrees with all the definitions of former writers of the nature of the unconscious, and has no use for Freud's or Jung's systems, but he outstrips even the psychoanalysts in his employment of new or unfamiliar technical terms.

The consideration of functional nervous and early mental disorders, in the description of which there is much that is sound and interesting, forms the bulk of the volume; but apart from these the list of diseases pronounced to be curable by induction is most surprising in the number and variety of conditions included. The author, he tells us, deals successfully, by this means, with asthma, hay fever, and seasickness; also drug habituation, diabetes, duodenal ulcer, Graves' disease, colitis, myxoedema, phthisis, cardiac disease, and warts. Certain cases of eczema and other skin diseases, delusions and hallucinations and even dementia precox have yielded to induction at his hands. Still more astonishing is the author's reported success with certain surgical cases. He also "humbly enters his claim to be the first medical man who has succeeded in obtaining definite results of a curative nature in cases of organic disease and new growths, by means of psychotherapy." Even cancer has not wholly escaped his skill. The text is interspersed with a large number of more or less fully reported cases. His many and invariably successful results are remarkably rapid, and he alludes to certain speedy cures as "magical." He predicts a "glorious time ahead" for those who will practice neuroinduction, asserting that "as a means of restoring will power it cannot be equalled in efficacy by any other known agency."

Medical men have little patience with panaceas and are therefore likely to receive these inordinate claims with scant favor. Moreover, the induction method, based as it is on a questionable psychology and a none too original technique, will hardly be generally accepted as a dependable guide in psychotherapy.

Diseases of the Skin. By HENRY H. HAZEN. Second edition: C. V. Mosby Co., St. Louis. 1922. Price $7.50.

This book differs markedly from most others on this subject in that it is written consistently from the general practitioner's point of view. He has simplified and condensed the chapters on anatomy and physiology, etiology, pathology, etc.; his chapters on treatment and hygiene are decidedly to the point. The arrangement of the succeeding chapters differs from that of most other works on the subject, being less scientific but much more accessible to the practitioner who wishes to identify as well as learn about cases that puzzle him; the first group takes up diseases due to external causes of all sorts; next, systemic infections, as syphilis and the exanthemata; the toxaemias; diseases due to blood vessel, lymphatic, and nerve changes; diseases due to foods, infantile eczema and pellagra; eczema; then a series of chapters each covering those conditions of unknown origin having the same general type of lesion, as papular and nodular, bullous and vesicular, etc.

The book is simple, very readable, takes up a sufficient length and in satisfactory detail the skin diseases more frequently met with. The illustrations are excellent throughout, the subjects well posed; the very large number of subjects chosen from the colored race makes a valuable addition to the worth of the book, as many dermatoses certainly differ considerably in the light and dark skins. A very few excellently chosen photomicrographs of striking lesions are included, leaving to the more voluminous and complete works the great mass of details useful to those who wish to become advanced in this field. The book has been largely rewritten for the second edition and some new material added.

Ten Post-Graduate Lectures, Delivered Before the Fellowship of Medicine at the House of The Royal Society of Medicine. 1919-1920. With a preface by THE RT. HON. SIR CLIFFORD ALLBUTT, P.C., K.C.B., M.D., F.R.S. New York: William Wood and Co. 1922.

This altogether admirable book contains the text of ten lectures; printed clearly and cleanly upon two hundred pages of good flat paper; a good index is added; illustrations have been omitted.

In the recent Harvard-Oxford debate, the intelligent observer could easily note the very considerable differences which exist between the methods of public spoken discussion in two of the leading universities of the world, representing two of the great present divisions of the English-speaking world. These ten lectures at present under discussion, show equally distinctly some of the differences which exist between Medical books and writings of the same two great groups. And although the verdict in the debate was in favor of America, a goodly minority in Symphony Hall that night believed that in the matter of really worth while oral discussion, and in its method, the young Englishmen were far ahead of the young Americans—so, too, many thoughtful American readers of English Medical writings admire very greatly the style and literary craftsmanship which they find so often in the English papers, and which is so often and so unfortunately lacking in American monographs of parallel aim. It is lacking very largely because we are too much in a hurry, and because too few of us enjoy any considerable degree of Medical leisure. Every one who reads the *Boston Medical and Surgical Journal* should also read these ten lectures. Every one of them is interesting and most of them are extremely valuable.

Atlas of Syphilis. By PROF. LEO v. ZUMBUSCH of Munich. William Wood and Co., New York. 1922. Price $15.00.

The atlas contains 49 illustrations of cutaneous syphilis taken directly from nature by color photography, ranging from the primary lesion, of various types and in various situations, through the secondary, transitional, and late manifestations; also five of congenital syphilis. Ten pathological specimens, including four photomicrographs showing treponemata, are included in the book. There is a brief paragraph of explanatory text with each. Rare types of lesions are not included, as the atlas is intended primarily for the student and general practitioner. The posing and lighting show skill and patience on the part of the author. The colors, unfortunately, have not come out true, yellow being too prominent in practically all the plates; otherwise the technical execution is excellent. It should be useful for teaching and for those to whom syphilitic cases do not often present themselves.

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Current Literature Department.

ABSTRACTORS.

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A CONTRIBUTION TO THE QUESTION OF THE LEUCOCYTE FORMULA IN MALARIA.

SWAN, JOHN M., (*American Journal of Tropical Medicine*, July, 1922) writes that differential counts were made of 68 blood smears from 55 cases of malaria including all three varieties of malaria. The result showed that an increase of the large mononuclear cells is not constant in malaria either in the acute stage of the disease or in carriers. If, however, the presence of malaria is suspected and an increase of large mononuclear leucocytes is found "it seems reasonable to assume that the patient has or has had malaria." [G. G. S.]

THE RELATION BETWEEN SYPHILIS AND YAWS AS OBSERVED IN AMERICAN SAMOA.

PARHAM, J. C. (*American Journal of Tropical Medicine*, July, 1922) writes: "Evidence is adduced against the duality of yaws and syphilis and the view advanced that yaws is 'stone age syphilis.'" [G. G. S.]

SHOULD GANGOSA BE REMOVED FROM THE NOMENCLATURE OF TROPICAL MEDICINE?

KERR, W. M. (*American Journal of Tropical Medicine*, July, 1922). The writer believes that the lesions to which the term gangosa has been applied are in reality late manifestations of syphilis or of yaws and that consequently the term gangosa should be eliminated. [G. G. S.]

THE IMMEDIATE INFLUENCE OF ALCOHOL INGESTION UPON DIABETIC GLYCOSURIA AND BLOOD SUGAR.

FULLER, L. S. (*Jour. Metabolic Research*, 1, 609, May, 1922), found that alcohol reduced both hyperglycemia and glycosuria in most of his mild or moderate diabetics, but usually not in those of great severity. The effect was most marked when alcohol was substituted for the caloric equivalent of fat, but was also frequently manifest when alcohol was added to the previous diet. Table III is really quite striking. The objection may, however, be made that the patient was retaining water in the body, and probably sugar at the same time, which might be only temporary storage. [H. G.]

THE INFLUENCE OF THE THYROID IN DIABETES.

ALLEN, F. M. (*J. Metabolic Research*, 1, 619, May, 1922) concluded from the literature and from new observations on dogs that thyroid excess may aggravate diabetes, but does not act as a cause; that thyroid deficiency may diminish glycosuria and hyperglycemia but probably only as a result of injury or cachexia; and finally that the general trend of the evidence has steadily reduced the supposed rôle of the thyroid in diabetes, especially as regards antagonism between pancreas and thyroid. [H. G.]

CLINICAL OBSERVATIONS CONCERNING PROGRESSIVENESS OF DIABETES.

SHERRILL, J. W. (*J. Metabolic Research*, 1, 667, May, 1922), reported in detail five cases of the youthful severe type, concluding that even these were opposed to the belief in a mysterious, spontaneous progressiveness. [H. G.]

THE CAUSATION OF EPIDEMIC DROPSY.

ACTON (*Ind. Med. Gazette*, Sept., 1922) makes a preliminary report on his studies of epidemic dropsy in India. This disease is characterized by localized oedemas, chiefly affecting the lower extremities, and not associated with signs of peripheral neuritis, thus differentiating it from beriberi. It is closely associated with an exclusive or almost exclusive rice diet. Both the quantity and the quality of the rice eaten are important factors. The disease is most common where the consumption of rice is greatest. Its peculiar distribution among middle-class Bengali Hindus indicates that the poison is formed during the seasoning process. These people prefer well-seasoned rice because it is sweeter and more easily digested. Seasoning consists in the splitting up, by bacterial action, of the vegetable proteids and carbohydrates into the more soluble proteoses, peptones and sugars. Seasoning is more apt to occur in polished rice, where the fruit is injured during the milling and, during the monsoon months, owing to temperature and humidity. When rice is hoarded in hot, damp godowns, decomposition progresses further with the formation of polypeptides, amino-acids and finally toxic amines, which cause the dropsy. The prevention of this disease consists, therefore, in the elimination of seasoned rice from the diet. [L. D. C.]

DIAGNOSIS OF ACUTE GASTRIC AND INTESTINAL DISEASE.

SCHNITZLER (*Wien. klin. Woch.*, June 22-29, 1922) discusses at length the entire field of diagnosis of acute inflammatory and mechanical diseases of the abdomen, involving the alimentary tract. He also reviews the principal indications for surgical procedure. The article is an admirable brief summary of diagnosis and treatment of the acute abdomen. [R. M. G.]

TREATMENT OF FEBRILE ABORTION.

MARCK (*Wien. klin. Woch.*, July 6, 1922) summarizes his treatment of febrile abortion in private practise as follows:

1. In incomplete febrile abortion with a free uterus and open cervix, immediate curettage should be performed.
2. With a closed cervix, the uterus may be emptied spontaneously by the use of quinine, but in the event of hæmorrhage or rising temperature, evacuation by dilatation and curettage is indicated.
3. If the temperature falls and remains normal, the uterus may be emptied immediately.
4. When the infection has extended beyond the uterus, palliative and expectant treatment is indicated. [R. M. G.]

VENESECTION AND TRANSFUSION IN OBSTETRICS AND GYNECOLOGY.

Werner (*Wien. klin. Woch.*, July 13, 1922) discusses the indications and contraindications for phlebotomy and transfusion in obstetrics and gynecology. The advantages of transfusion in acute, severe hæmorrhage are obvious. Like many modern obstetricians the author seems unduly enthusiastic about the benefit of venesection in eclampsia. [R. M. G.]

CENTENNIAL OF GREGOR MENDEL.

Reichel (*Wien. klin. Woch.*, July 20, 1922), on the hundredth anniversary of the birth of the great Mendel, summarizes his fundamental contributions to our knowledge of heredity, and points out its basic significance for the future of the science of genetics. Like many geniuses, Mendel died without seeing the importance of his discoveries appreciated. It was the medical profession which first realized and applied the principles of the theologian-scientist.

[R. M. G.]

HYPSELOPHONY.

Grgurina (*Wien. klin. Woch.*, Aug. 3-10, 1922) describes, under the name of hypselophony, a new method of pulmonary auscultation, based on a study of the overtones, which tend to become emphasized, while the basic tone recedes, over consolidated areas. He discusses various phenomena connected with this method, which seems of value in the study of tuberculosis. [R. M. G.]

GALVANO-PALPATION AND ROENTGEN RAYS.

Kahane (*Wien. klin. Woch.*, Aug. 17-24, 1922) describes a method for the combination of the galvanic test of sensory and motor nerves with Roentgen fluoroscopy in the study and diagnosis of diseases of the neuro-muscular system, the nasal accessory sinuses, larynx, thyroid, thymus, lungs, heart, aorta, abdomen and pelvis. His technic is not new but there are novel suggestions in his concurrent use of two familiar modes of examination. [R. M. G.]

A TRANSLATION FROM NICOLAUS CUSANUS.

In the *Annals of Medical History* (Vol. IV, No. 2) **Viets** of Boston presents an introductory sketch of Nicolaus of Cusa, followed by a translation of his "De Staticis Experimentis" from the Flach edition in the library of the late Sir William Osler. This treatise on experiments in statics bears a fundamental relation to medicine; for not only does it present his great achievement of perceiving for the first time the importance of counting the pulse, but it contains significant suggestions on the use of gravimetric methods in the study of blood and urine. It was first published in 1476 as the last of a series of four dialogues between a learned and an ignorant man, following the Socratic pattern. An excellent bibliography and four interesting illustrations complete Viets' valuable paper. [R. M. G.]

CHOLECYSTENTEROSTOMY FROM AN EXPERIMENTAL STANDPOINT.

Gatewood and **Poppens, P. H.**, (*Surg. Gynecol. and Obstet.*, Oct., 1922). These authors write as follows:

From the foregoing experiments, performed upon dogs, in which the gall-bladder was anastomosed to the stomach, duodenum, and colon, the following conclusions may be drawn:

1. The gall-bladder invariably becomes infected, regardless of the viscus used for anastomosis.
2. There is little, if any, difference between the stomach and duodenum in the matter of rapidity of infection.
3. The colon is not the portion of the gastro-intestinal tract to be chosen by preference. The immediate dangers of peritonitis are much greater, and probably liver infections would occur earlier than when the upper part of the gut is used.
4. All livers become infected sooner or later if the method employed in our experiments be followed.
5. Cholecystenterostomy, from an experimental standpoint, is not an operation to be recommended for use except in well-selected cases, such as carcinoma of the pancreas, where the temporary comfort of the patient is paramount, or irreparable common duct obstruction. [E. H. R.]

ABSCESS OF THE LUNG.

Lockwood (*Surg., Gynecol. and Obstet.*, Oct., 1922). This author writes as follows:

Contrary to the opinion of the early writers, that abscess of the lung is a common sequela of lobar pneumonia, a survey of the reported cases of the last century would lead us to conclude that it is a rare sequela.

By lowering the resistance in the lung tissue itself, the pneumonias (lobar, broncho and influenzal) predispose the patient to the development of lung abscess following pyogenic infection.

Lung abscess occurs more often between the years of 25 and 40. It is three times as common in males as females; it occurs three times as often on the right side as on the left, and about twice as often in the lower lobe as in the upper. Three out of four are peripheral and involve the pleura, and one out of four is multiple.

It must be borne in mind that recently a high percentage of lung abscesses has been the result of neglect or mismanagement on the part of the nose and throat surgeons, the oral surgeons, and the dentists. Such neglect or mismanagement is manifested in the selection of the anaesthetic, and in not keeping the patient's head low, and in not taking sufficient precautions to prevent the patient from inhaling foreign matter. Such a sequela may be avoided by (1) employing a local anaesthetic whenever possible in surgery of the mouth, nose, and throat, and in teeth extraction; (2) keeping the head low during such operations, if a general anaesthetic is employed, until the patient has thoroughly aroused from it; (3) taking care to prevent blood and mucus from accumulating in the throat and being aspirated; and (4) better haemostasis in such work.

The diagnosis depends on the history, the amount, and nature of the sputum, the roentgen-ray, and the physical examination.

A study of results in these cases has led me to conclude that surgery should not be employed as soon as the diagnosis has been made, except as indicated. The mortality has been unnecessarily high in many instances. Instead, thorough medical treatment, with postural rest and drainage, should be instituted. When this fails, pneumothorax should be produced in selected cases, and surgery reserved for those patients who do not respond to the other two methods.

The exploratory needle should not be employed.

When surgery is decided on, paravertebral and local anaesthesia is necessary with gas and oxygen, should be used, and in the majority of cases a more deliberate, extensive, and logical operation should be planned than resection of the chest wall over the abscess, and cautery or blunt puncture of the abscess.

If the patient's condition is such that extensive operation would carry too much risk with it, resection, blunt puncture, and exploration of the abscess with the finger, should be the limit of surgery.

The surgeon, physician and roentgenologist should be intimately associated in the diagnosis and care of these patients. [E. H. R.]

Pathological Complications with Duplication of the Renal Pelvis and Ureter (Double Kidney).

Braasch and **Scholl, Jr.**, (*Surg., Gynecol. and Obstet.*, Oct., 1922). These authors write as follows:

One hundred and forty patients with duplication of the renal pelvis and ureter have been observed at the Mayo Clinic. The incidence of aberrant and bilateral duplications of ureters and pelves reported in the literature is relatively too high owing to the tendency to report the more unusual cases. Of the patients in this series the duplication was unilateral in 135 (94 per cent.) and bilateral in 9 (6 per cent.). Of the 135 patients with unilateral duplication, 36 (25 per cent.) had complete duplication, and 99 (68.7 per cent.) had incomplete duplication. Of the 9 patients with bilateral duplications, 8 had complete duplication and 1 had incomplete.

Duplication may vary from duplication confined to the renal pelvis to duplicate pelvis with separate ureters opening into the bladder. The pelves are generally unequal in size, the upper being the smaller, and are separated by a bridge of normal renal cortex of variable extent. When an unusually small renal pelvis is outlined in the pyelogram, the possibility of duplication should be suspected.

Complete duplication will be discovered more often if a careful search is routinely made for anomaly at the time of cystoscopic inspection. In cases of partial duplication the diagnosis is made only by means of a pyelo-ureterogram.

The lower segment is primarily involved more often than the upper.

Hydronephrosis is the most common pathological complication, and is due to ureteral obstruction, generally in the region of the juncture of the two ureters in cases of incomplete duplication.

In tuberculosis of double kidneys, gross evidence of the disease is generally confined to one segment, usually the lower, but in all cases histological examination reveals tubercles in the intervening renal tissue and extending into the remaining segment.

Occasionally when only one pelvis is outlined by the pyelogram, its unusual shape and contour may be misconstrued with pathological changes occurring in single kidneys, such as atrophic pyelonephritis.

In the series of 144 cases, the histories of 19 of which are here reported, 30 patients were treated surgically, 24 patients had definite pathological conditions which did not require surgical treatment, and in 27 evidence of disease was doubtful. Only 61 (42 per cent.) of the patients were without pathological complications, and the anomaly was discovered in the examination for other conditions.

Fifteen of the 30 patients operated on submitted to primary nephrectomies, and 4 to heminephrectomies; 2 of these later required complete nephrectomy. Six pyelolithotomies and three ureterolithotomies were performed. In one patient hydronephrosis was relieved by the cutting of an aberrant vessel, and in another symptoms were relieved by the ligation of an aberrant ureter from the upper pole of a double kidney.

In the treatment of pathological complications in a double kidney the indication for heminephrectomy is limited to but a few favorable cases. The possibility of infection extending to the remaining half of the resected kidney, which may necessitate subsequent complete nephrectomy, must be considered.

[E. H. R.]

Hydatid Cysts of the Heart, with Report of Case.

Mills (*Surg., Gynecol. and Obstet.*, Oct., 1922). This author reports a very interesting case, which on post mortem examination showed a well-developed hydatid cyst of the right ventricle of the heart. The author gives a short historical review, reporting six other cases and a very good bibliography. These cases are extremely unusual, and diagnosis has never been made before autopsy. Death has usually been sudden and unexplained on the usual pathological grounds except in cases where hydatid cyst has been known to exist in other parts of the body. [E. H. R.]

Bone Formation in Operative Wound Cicatrices.

Jones (*Annals of Surg.*, Oct., 1922) reports a unique case in which an operation for inguinal hernia was followed by definite bone formation in the scar. There was no history of infection. The new bone was not connected with muscle in any way, but lay in the scar tissue and was freely movable. It was not attached to the pubic bone, and it was easily separated from the connective tissue which extended through the little holes in the specimen. Histological examination showed the specimen to be true bone, no cartilage or connective cells were found.

The author explains the formation of it by stating that the operator, in placing his last suture, pricked the pubic bone with the needle, and carried some of the osteogenic cells into the wound, where they later proliferated.

The condition suggests the possibility of growing osseous tissue outside of the body. [E. H. R.]

Intussusception of Stoma Following Gastro-Enterostomy.

Lewisohn (*Annals of Surg.*, Oct., 1922) reports an extremely interesting case in which intussusception occurred at the site of a gastro-enterostomy opening with symptoms of acute intestinal obstruction. The author furnishes an excellent drawing of this case.

[E. H. R.]

Peripheral Nerve Injuries Associated with Fractures.

Lewis and **Miller** (*Annals of Surg.*, Oct., 1922). These authors write as follows:

Nerve injuries are associated with fractures much more frequently than supposed. They are frequently overlooked because of the hasty and incomplete examination of fractures. When fractures are examined the possibility of a nerve injury should always be kept in mind.

The character of the injury varies greatly, from the slightest contusion from which the patient rapidly recovers, to anatomic division and callus inclusion, which demand surgical interference.

It is often impossible to differentiate by the most careful neurological examination between physiologic interruption of the nerve current and anatomic division of the nerve.

There is a tendency in these cases to wait too long for spontaneous recovery.

When recovery has not commenced within three months after the injury, the injured nerve should be explored and the surgical procedures demanded by the pathological findings be instituted.

Neurolysis is the operation which will be most frequently required. Resection of the humerus should no longer be resorted to to permit of end-to-end suture of the musculospiral nerve. Tendon transplantation should be performed in these cases.

The prognosis is very favorable in injuries of this type because of the frequency with which the musculospiral nerve is the one injured, and because of the relative infrequency with which it is divided, only neurolysis being necessary.

In the late ulnar nerve palsies, transposition of the nerve to the front of the elbow will be necessary in the cases of cubitus valgus. When bony outgrowths cause the paralysis, removal of such outgrowths and the placing of the nerve in a healthy bed may be all that is required. (E. H. R.)

THE SURGICAL RELIEF OF INTESTINAL FOCI OF INFECTION IN CASES OF ARTHRITIS DEFORMANS.

Smith, R. (*Annals of Surgery*, October, 1922). This author writes as follows:

We believe that we have clinical proof that chronic polyarthritis is the result of a focal infection located in the ileocaecal coil. That no study of a case of arthritis is complete without a careful investigation of the gastro-intestinal tract, especially of the ileocaecal coil, for both motility and mobility. In the event that a pocket exists in the intestine, the rational procedure is first an abdominal operation to straighten out bad mechanics and restore function to the caecum, a prolonged medical régime to restore the unbalanced intestinal flora to normal and then such orthopedic procedures as are necessary to restore function to damaged joints. [E. H. R.]

TREATMENT OF CARCINOMA OF THE RECTUM.

Coffey, R. C. (*Annals of Surgery*, October, 1922), presents, in the writer's opinion, the best article on the operative treatment of cancer of the rectum recently published. His diagrams so well explain the text that it is almost unnecessary to read his text, except to emphasize certain important steps. The logic of his operative procedure is easily seen. The article is of extreme value. [E. H. R.]

A BACTERIOLOGIC STUDY OF THE FLUID CONTENTS OF 100 GALL-BLADDERS REMOVED AT OPERATION.

Drennan, J. G. (*Annals of Surgery*, October, 1922). This author writes as follows:

In a series of 100 gall-bladders removed at operation only 19 per cent. contained fluid infected with bacteria; the infecting organisms were bacillus coli in 12 per cent. of the cases, a staphylococcus in 4 per cent., a streptococcus in 2 per cent., and a non-pigment-forming sarcina in 1 per cent.

The probable reason there is not a higher percentage of infected gall-bladder fluids is that the contained fluids have a concentration of bile too high, for bacteria will not grow satisfactorily if more than 70 per cent. of bile is present.

In the 19 per cent. of infected gall-bladder fluids the concentration of the normal bile had been lowered by inflammatory exudates, thus permitting the growth of bacteria in the fluid contents of the gall-bladders. [E. H. R.]

THE SURGICAL TREATMENT OF SYPHILIS OF THE STOMACH.

Graham, E. A. (*Annals of Surgery*, October, 1922), contributes a valuable paper on this subject, giving a very accurate description of the lesions, and reports three cases in detail. He states in conclusion that surgical complications of gastric syphilis occur with probably greater frequency than is commonly recognized. These consist usually of deformities produced by scar tissue formation in the healing of the syphilitic process. They are commonly seen, therefore, as stenoses at or near the pylorus, but sometimes as hour-glass contractures or perigastric adhesions. In another group in which there is impaired motility without organic stenosis of the pyloric orifice but with rather generalized sclerosis of the whole stomach, it is doubtful how much good, if any, can be accomplished by surgical measures. In a study of thirty-four cases (including thirty-two from the literature and two from the author's series) resection of the pylorus gave uniformly good results in cases of stenosis of that orifice, while gastro-enterostomy was frequently followed by only slight or temporary improvement. It would seem, therefore, that pylorectomy is more likely to be followed by complete relief of symptoms than is simple gastro-enterostomy, although a study of more cases may show that the latter operation is sufficient in cases of actual stenosis of the pylorus. There will remain certain cases without organic obstruction in which surgical measures will probably not be indicated. [E. H. R.]

CONGENITAL HYPERTROPHIC STENOSIS OF THE PYLORUS IN THE ADULT.

Oliver, J. C. (*Annals of Surgery*, October, 1922), very briefly discusses the literature so far appearing on his subject. This literature is extremely meagre, only a very few cases having previously been reported. The author reports in detail a case in which the diagnosis and operation are described. The Rammstedt was employed with complete relief. [E. H. R.]

THYROID SURGERY AND THE DEMENTIA PRAECOX SYNDROME.

Eastman and Eastman (*Annals of Surgery*, October, 1922).

These authors call attention to the frequency of thyroid disease and dementia praecox occurring in the same patient, and give full histories of four cases in which hemithyroidectomy was done for relief of the nervous symptoms. They discuss various theories in regard to the intra-relationship of these two conditions, but do not attempt to entirely explain it, and they conclude from their observations that there seems to be a reasonable expectancy that the partial removal of the thyroid will in certain cases relieve the symptoms of dementia praecox. The article is suggestive. [E. H. R.]

THE CHOICE OF OPERATION FOR GASTRIC ULCER IN VIEW OF THE LATE RESULTS.

Woolsey, G. (*Annals of Surgery*, October, 1922), writes as follows:

For ulcers three to four or more inches from the pylorus, the choice lies between excision and mesogastric resection. On account of the better results I prefer excision and gastro-enterostomy, except for ulcers with hour-glass contraction and large indurated ulcers, especially those on the posterior surface.

For ulcers near the pylorus, or within three inches or so of it, I prefer the Polya method. It is easy, reasonably rapid and has given the best results of any method.

In case the operation is done in two stages, or a gastro-enterostomy has previously been done, the Billroth II method is the rational procedure, but the two-stage procedure is rarely called for in cases of ulcer.

For ulcers at, or close to, the pylorus, especially such as cause a stenosis, a posterior gastro-enterostomy is the simplest and safest operation, gives good results and may be the method of election for those not experienced in resection. It is quite possible for such an operation to benefit or cure ulcers remote from the pylorus.

The possibility of cancerous degeneration of a gastric ulcer would in general lead to its resection or excision, but, as was long ago pointed out by Kocher and others, such degeneration is quite uncommon in cases treated by gastrojejunostomy. In view, however, of this danger, whether we class it at a high per cent. with some or a low per cent. with others, I firmly believe in the complete removal of gastric ulcers by resection or excision unless the operative risk is greatly increased on account of the general or local condition of the patient. [E. H. R.]

X-RAY AND CLINICAL FINDINGS IN NORMAL CHEST OF CHILDREN SIX TO TEN YEARS.

The National Tuberculosis Association Medical Research (*Canad. M. A. J.*, vol. xii, No. 8, Aug., 1922) reports their findings in over 500 children with no chest abnormalities. Their findings are presented as follows: clinically, the ideal, normal child is a hypothetical impossibility. Children, apparently healthy, symptom-free and active, show on careful examination many deviations from fixed standards, variations that must be interpreted as within physiological limits; standards of height and weight must be elastic, measures of resonance and resilience of the chest must not be rigid, and estimates of acoustic phenomena must permit of a range of difference from the ideal. These facts, clinical experience establishes beyond peradventure, and they suggest a corollary, namely, that x-ray examination of the chest of such children may be expected to show comparable deviations from a fixed ideal roentgenogram. Inasmuch as the changes referred to are dependent often upon alterations that persist as the residua of past infections of the respiratory tract, it is obvious that a careful anamnesis, with special reference to all infections, is necessary if diagnostic errors are to be avoided. Even a history carefully taken is often unreliable, as minimal infections are soon forgotten by many, and among the unintelligent classes even more significant indispositions are not readily recalled. Failure properly to evaluate these deviations from a fixed standard will often lead to the unwarranted diagnosis of disease and to even less justifiable treatment. With a proper appreciation of the widest variations that the normal may present from the ideal, the informed clinician is better able correctly to understand the findings of the roentgenologist, and each, coöperating with the other, is less liable to error. D'Espine's sign as indicative of enlarged tracheo-bronchial lymph nodes is of little value. Recognition of and familiarity with the foregoing data are of cardinal and practical importance to every patient, potential and established. Without a proper appreciation of the facts set forth, no intelligent differentiation between a normal and an abnormal respiratory tract can be made. The normal chest of the child from the roentgenologic standpoint is subject to such wide variations within normal limits as to be beyond the possibility of description. The conglomerate shadow commonly called the hilum shadow, when found lying entirely within the inner third or zone of the lung area, can be disregarded (or regarded as normal), except where it is made up of a solid mass of homogeneous shadow giving undoubted evidence that it represents a growth or mediastinal pleurisy. Calcified nodes at the root of the lung, without evidence of lung disease, are of no significance except as a possible evidence of some healed inflammatory condition, possibly but not necessarily tuberculous. They are a common finding in normal chests. In brief, to establish the presence or absence of disease, it is imperative that all data—clinical, laboratory, and roentgenographic—must be evaluated and correlated and that no one fraction of the evidence be stressed to the exclusion of the others.

THE EFFECTS OF ULTRAVIOLET RAYS ON THE CALCIUM AND INORGANIC PHOSPHATE CONTENT OF THE BLOOD SERUM OF RACHITIC INFANTS.

TISDALL, F. F. (*Canad. M. A. J.*, vol. xii, No. 8, August, 1922), uses the following technic: he started with exposures of 5 minutes' duration with the lamp 100 cm. from the body, in the case of small infants. The length of exposure was gradually increased and the lamp moved nearer the body until a maximum exposure was given of 15 minutes' duration at 60 cm. He finds that exposure of rachitic infants to ultraviolet rays from a mercury vapor quartz lamp, for very short periods, caused a marked increase in both the calcium and inorganic phosphate content of the blood serum, which was followed by clinical and roentgenographic evidences of healing. No increase in the serum calcium and inorganic phosphates was obtained by prolonged exposure to the rays from an ordinary 500-watt incandescent lamp.

POST-OPERATIVE COMPLICATIONS OF THE RESPIRATORY TRACT.

DECKER, H. R. (*Canad. M. A. J.*, vol. xii, No. 8, August, 1922), found that those with history or evidence of recent acute respiratory inflammation, those with chronic lesions, as bronchitis or empyema, those with pulmonic hypostasis, whether cardio-renal, or due to cachexia of old age, are poor respiratory tract risks. He carries out the following prophylactic régime: before operation—careful history and physical examination are done in order to find cases of the above types; careful nursing rules are carried out—a 70° temperature in bathrooms is maintained; the patients are kept warm and out of drafts; the anaesthetic is carefully chosen, replacing ether in many cases by spinal or rectal anaesthesia; oral hygiene is insisted upon; during operation—careful precautions are taken against chilling; the anaesthetic is given only by one especially trained for it; surgical technic is designed to eliminate the etiologic factors of thrombo-embolism, as suggested by Ochsner; dressings are applied firmly, but so as not to impede respiration, abdominal binders not being often used; after operation—exposure is carefully avoided, free movement in bed is encouraged, and raising of the head and thorax from the flat position is encouraged, especially if hypostasis is present.

FEAR, A HARMFUL EMOTION—HOW MAY WE ELIMINATE IT FROM THE SURGICAL PATIENT'S MIND?

GUTHRIE, DONALD (*Canad. M. A. J.*, vol. xii, No. 8, August, 1922), suggests the following points to be carefully considered in a surgical hospital in order to minimize the patients' fears: the doorman, telephone girl, clerks, etc., at the entrance, must be of a cordial type; the patient must not be kept waiting in the ward to watch the hurrying about while she seems to be neglected; the admission should be to a convalescent ward, not to one where is suffering; there should be as little delay as possible before operating; the surgeon should personally talk the case over the night before and encourage the patient; sound sleep should be provided, not a night of trips to the bathroom; operations should be done as early in the day as possible; the anaesthetist should be most carefully chosen, and silence should be preserved by all about except the anaesthetist, and rattling and bustling about should not be permitted; recovery should be in a quiet room, morphia should be given freely, and an abundance of water; before discharge, the patient should be told in detail what the operation was, what the after-care should be, and encouraged to report progress from time to time after returning to the patient's home physician.

REPORT OF A CASE OF BROMIDE ERUPTION IN A NURSING INFANT.

BOONE, F. H. (*Canad. M. A. J.*, vol. xii, No. 8, August, 1922), reports a case of a six months' old infant that received sufficient bromide through the mother's milk to produce marked cutaneous signs of bromide poisoning. The mother was receiving 45 grains of sodium bromide a day, for seven and a half weeks. The first symptom in the baby began four and a half weeks after the mother began taking the drug. The mother never developed any symptoms. After discontinuance of the drug, the baby steadily improved.

Bone Suppuration the Basic Cause of Renal Calculus in Twenty Cases Following War Wounds.

Paul, H. E. *(Canad. M. A. J.*, vol. xii, No. 9, September, 1922), presents a discussion of the previous writings on the subject and the findings in twenty of his cases in ex-soldiers. The oldest was 37, the youngest 22; with one possible exception there appeared to be a definite history of bone suppuration in all. Urine from 18 of these cases showed well marked evidence of infection; one case was constantly free from organisms by the microscope, the other was so on the affected side by culture. Staphylococci were the commonest; colon bacilli occurred. Lack of drainage in the upper urinary tract seems not to be an important primary cause of the formation of renal calculi following such a systemic infection as bone suppuration.

Mesenteric Thrombosis—with Report of Two Cases.

Parker, C. B. *(Canad. M. A. J.*, vol xii, No. 9, September, 1922), reports in detail two cases, one with operation and recovery, the other with operation and autopsy; he describes the cases in detail.

A Study of 443 Cases of Hereditary Syphilis with Especial Reference to Results of Treatment.

White, P. J., and **Veeder, B.**, of St. Louis (*A. J. Syphilis*, vol. vi., No. 3, July, 1922), report their investigation of 396 families containing 443 definitely congenital syphilitics who were treated and watched with adequate hospital, clinic, and social service facilities; 197 were under two years of age, the other 246 children were first seen when in the stage of "late" congenital syphilis. They discuss some of the literature on congenital syphilis by previous authors.

From the social standpoint, they found the group difficult to deal with on account of lack of interest on the parents' part, only 52 parents out of 230 helping to follow out a thorough course of treatment, while 95 were absolutely uncoöperative. In spite of careful and intensive follow-up work, only about one-third of the cases were brought back long enough to have adequate treatment. From the medical point of view, they found that the individual case has a fair chance of clinical and serological recovery or improvement, occasionally with fairly little treatment, much better with thorough treatment with the arsenicals and mercury; if serological and clinical evidence of central nervous system involvement is present, the chances of recovery or real improvement are poor. As regards the group as a whole, they find the results disappointing; even in spite of treatment, the infant mortality rate was three times that for other infants of the same age limits in the same city (St. Louis). Approximately one-third of the group had involvement of the central nervous system, and showed very little improvement; the residue left usually placing the child among the socially unfit. The authors group as follows the 308 cases whose end-results are known: cured or recovered, 22%; improved, 35%; unimproved, 17%; died, 25%. They advise as the greatest help to the problem that the syphilitic mothers be treated so far as possible both to prevent the children from being syphilitic, and also to cut down the large number of syphilitic foetal deaths, as prevention is much more satisfactory than cure.

The Diagnosis of Early Syphilis.

Stokes, J. H., and **McFarland, A. K.** (*A. J. Syphilis*, vol. vi, No. 3, July, 1922), analyze 231 cases of primary and secondary syphilis, largely untreated. They emphasize the fact that the primary lesion should be diagnosed not by clinical criteria, but by the dark field microscope and the Wassermann test. They found that 55-65% of all genital lesions were proved at the first examination to be chancres of syphilis. 88% of the primary lesions gave positive dark fields the first week, 66% were positive regardless of age, while none were positive by the ninth week. 70% of the Wassermann tests made during the second week of the primary were positive, thus showing that each test is at its best when the other is the least useful. No local applications whatever should be applied to the lesion until the dark field examination has been repeatedly made, yet 11 out of 17 cases gave positive results, including one that had been cauterized and three that had had a little arsphenamin and mercury. Aspiration of the satellite bubo yielded 50% positive dark fields. Of 80 patients who had been previously examined, only three had had a dark field examination made. "Chancroid" should never be diagnosed within four months of the appearance of the lesion under suspicion, until the possible presence of syphilis has been absolutely excluded. All genital lesions (the reviewer would add, all lip lesions) should be considered chancres until proved to be otherwise. One man had been used as a transfusion donor while his chancre was present, and 10 days before the secondary eruption appeared, when he should have been at the height of his spirochetemia. In the secondary moist lesions, 23 out of 24 dark field examinations were positive. In this series, 24% of the patients with well developed secondary syphilis, a high percentage, could give no history of any chancre, including one physician; this number includes women, who are apt to show no primary. 75% of the women, 64% of the men, had infectious lesions when first seen. A half of the group had constitutional symptoms with the secondary lesions, only 4 in 28 in the pre-eruptive stage; the women showed a greater percentage than the men, 63% as against 43%; the leading symptoms were sore throat, headache, and head pain. Combinations of mild fever, sweats, loss of weight, asthenia, gastro-intestinal symptoms, nervous irritability, arthritic and myalgic pains, and anaemia, are frequent and are easily confused with early tuberculosis; they justify a routine Wassermann test in suspected tuberculosis, especially in early adult and middle life.

An Arsphenamin Derivative Suitable for Subcutaneous Administration.

Voegtlin, Dyer, and **Thompson**, of the Division of Pharmacology, Hygienic Laboratory, U. S. P. H. Service, describe in detail their experimental work on an arsphenamin derivative, prepared from arsphenamin, formaldehyde, and sodium sulphite, which began to be made in 1919 by the Laboratoire de Biochemie Medicale in Paris, hoping to stimulate others to try it out. It closely resembles neoarsphenamin chemically and in appearance, but is very stable in watery solution in the presence of air. It gives no local irritation following subcutaneous injection. It has been tried out by several clinicians in a small number of cases, not enough yet so that its therapeutic dose has been determined, though probably doses slightly larger than those of neoarsphenamin can be used. The toxicity is about the same as the average neoarsphenamin, while the trypanocidal power is slightly less. The excretion rate of the arsenic in the drug is about the same as in arsphenamin and neoarsphenamin.

The Wassermann Reaction from the Clinician's Point of View.

Broeman, C. J. *(A. J. Syphilis*, vol. vi, No. 3, July, 1922), discusses 1742 Wassermann tests made on 366 private cases, giving in chart form the Wassermann reports from three laboratories, the diagnosis, and in many cases notes as to the exact symptoms, amount of treatment, etc. He emphasizes the importance of careful clinical examination and history, especially in view of the fact that this series showed a discrepancy of some sort in 30% of the cases. 52 cases with definite syphilis had negative Wassermann tests in at least one laboratory. A clean cut case of syphilis needs no Wassermann, but one should always take one to prevent subsequent criticism by the patient or another physician. A negative Wassermann is of no value in the presence of a penile lesion. A diagnosis of syphilis on one positive Wassermann, especially a weakly positive, cannot be too strongly condemned, but must be checked up by clinical findings or several tests in more than one laboratory. An early negative Wassermann in the course of treatment is encouraging, but does not mean cure by any means, as a varying per cent. of cases of very definite syphilis have negative Wassermann tests. The author emphasizes the need of a more standardized technic of the Wassermann reaction, and a need of the serologists to realize more their responsibility in reporting Wassermanns.

THE DISTRIBUTION AND EXCRETION OF ARSENIC AFTER INTRAVENOUS ADMINISTRATION OF ARSPHENAMIN IN CHILDREN.

CLAUSEN, S. W., and JEANS, P. C., *(A. J. Syphilis*, vol. vi, No. 3, July, 1922), studied a group of children under treatment for syphilis to determine the excretion of the arsenic, and studied the distribution in the body on kittens. They gave to the children in all cases a dosage of 10 mg. per kilo of body weight. Blood was taken at intervals of 2, 10, 20, and 30 minutes, and 1, 3, 6, and 24 hours after the injection. They describe in detail their method of arsenic determination, and give tables and graphs showing their results, which they summarize as follows: Arsphenamin rapidly disappears from the blood, but 10% remaining in one hour. In the blood it is present exclusively in the plasma. The organs taking up the largest amounts are the liver and small and large intestines. The excretion begins immediately, is very rapid at first, gradually diminishing until at the end of two weeks only traces are found. However, at the end of two or even three weeks 50% is still in store in the tissues. It is excreted five times as rapidly in the stools as in the urine. The curve of excretion by the urine is a peculiar one and is evidently a composite of two curves. It seems likely that the curve of excretion via the stools would be of the same type if the stools should be collected accurately at stated intervals. The amount of arsenic found in the cerebro-spinal fluid is greatest in the first hour (in some cases two hours) after intravenous administration. The amount of arsenic found in the cerebro-spinal fluid seems to depend upon the amount of inflammation present. In some children with no evidence of neuro-syphilis no arsenic is found. The greatest amounts were found in those cases with evidence of the most active inflammation. More was found in infants with neuro-syphilis than in older children similarly affected. In all patients was noted a diminishing amount of arsenic in the cerebro-spinal fluid at succeeding injections and for the same time intervals. The arsenic content of the spinal fluid is at least as great in cases of cerebro-spinal syphilis after intravenous administration of arsphenamin as would result from the intrathecal injection of arsphenamized serum according to the Swift-Ellis technic.

CARCINOMA OF THE TONGUE AND ITS TREATMENT WITH RADIUM.

TAUSSIG, LAWRENCE *(Arch. of Derm. and Syphil.*, vol. vi, No. 4, October, 1922). A gumma, leukoplakia, and chronic syphilitic glossitis may all predispose to cancer, though the determining factor in the change is obscure. In the non-syphilitic, cancer of the tongue may be caused by the excessive use of tobacco, or may start in a chronic ulcer caused by a rough tooth, though in many, no previous lesions seem to have been present. The author has treated during the last two and a half years 14 patients with cancer of the tongue; two were women, the ages varied from 36 to 93; 4 had syphilis as well; 2 are clinically well two and a half years after radium treatment, one after one and a half years, one at six months, 5 showed metastasis at time of treatment and all died. 5 others have died. The author believes that with improved technic 25% of unselected cases of cancer of the tongue can be cured with radium.

CANCER OF THE LIP TREATED BY ELECTRO-COAGULATION AND RADIATION.

PFAHLER, G. E. *(Arch. of Derm. and Syphil.*, vol. vi, No. 4, October, 1922), states that no form of treatment will cure late cases, so early and thorough treatment is necessary, always by radiation, often by other means as well; while all irritations of the lip should be looked upon as either malignant or syphilitic if lasting over a month. 105 private cases were treated, 80 primary, 20 recurrent, and 5 post-operative. Of the 80 primary cases 74 recovered and have been well for from several months to 18 years, 2 died of a continuation of the disease, two had recurrences, the outcome of one is not known. Radiation should be used thoroughly in all cases. If surgery or electrocoagulation is to be used also, a preliminary radiation with a full erythema dose should be given over the lip and chin, submental and submaxillary regions, and repeated two to three weeks later, after the operation. Metastatic lymph nodes should be treated by surface radiation followed by excision or by radium implantation.

TREATMENT OF CANCER OF THE LIP BY RADIATION.

LAIN, E. S. *(Arch. of Derm. and Syphil.*, vol. vi, No. 4, October, 1922). The cellular morphology of cancer of the lip has less importance in the prognosis than the location or degree of development or the age of the patient. He has repeatedly observed that on account of a beginning atrophy of the lymph system, after a certain age the prognosis is bad. Especially is this true of cancer of the lower lip. We believe that a prickle or a squamous cell cancer, in the early stage of its growth, will undergo degenerative changes under radiation from either radium or roentgen ray just as the basal cell variety does. They differ only in the amount of radiation necessary and the technic of its application.

Finally he believes that sufficient statistics, verified both by clinical and laboratory findings, have now accumulated to justify the conclusion that cancer of the lip is equally and perhaps more amenable to treatment by roentgen ray or radium than by surgery, and in most cases radiotherapy is to be preferred.

YAWS: ITS MANIFESTATIONS AND TREATMENT BY NEO-ARSPHENAMIN.

GUTIERREZ, P. D. *(Arch. of Derm. and Syphil.*, vol. vi, No. 3, September, 1922), discusses 275 cases of yaws treated near Manila. He states that in this locality at least the disease is confined largely to the poor and to the coast towns; the disease is transmitted by direct contact, usually in childhood and adolescence, and scabies seems to be a factor in the transmission of the disease. The disease has three stages—the primary, the secondary, and the tertiary. The primary has an incubation period of from two to four weeks, develops usually on the exposed surfaces, starts as a papule, becomes moist after a week, a crust soon forms and an ulcer develops under the crust. This lesion is usually painful, and the neighboring glands are swollen. The primary lesion may heal before the secondary eruption appears, or may last for many months or some years, longer even than the secondary lesions in the same patient. The secondary lesions seem to appear from one to three months from the beginning of the primary, and are preceded by malaise, fever, and bone and joint pains. The secondary lesions may occur in successive crops, each taking from three months to a year to clean up. Most of them take one of the following types: nodular or framboesiform, papular, or macular. The secondary and tertiary lesions frequently intermingle, occasionally the primary also. The tertiary lesions are largely of the following types: chronic periostitis of the long bones, painful and disabling; gummata, frequently closely resembling syphilitic gummata; keratosis, especially of the palms and soles. Yaws is much more sensitive to arsphenamin than is syphilis.

The Signs of Filarial Disease.

B. Blacklock (*Annals of Tropical Medicine and Parasitology*, vol. xiv, No. 2, July, 1922).

It is generally believed that "tropical elephantiasis" results from filarial infection, but that "sporadic elephantiasis" such as occurs in temperate climates is in no way dependent on the presence of the filaria. Blacklock's findings based on the examination of 240 cases seen in or near Sierra Leone lead him to the conclusion that "many of the 'signs of filarial disease' have no more correlation with the presence of microfilaria in the blood than has hernia; some have less." Accepted views regarding the rôle played by the filaria in elephantiasis may perhaps require revision. [G. C. S.]

The Blood Serum in Pernicious Anemia.

Brockbank, E. M. (*British Medical Journal*, July 22, 1922), presents the following conclusions as a result of his observations on the blood serum in pernicious anaemia:

1. The serum of pernicious anaemia is always definitely yellow and that of all other anaemias nearly colorless. The color may be seen in two or three drops of serum in a small glass bulb.
2. Oxyhaemoglobin absorption bands appear in the serum of the great majority of cases of pernicious anaemia, and can easily be seen by a pocket spectroscope. They are not seen in the serum of other anaemias.
3. Continental observers have found haematin in the serum of some cases of pernicious anaemia, and they believe that bilirubin gives rise to the yellow color.
4. There may be some free oxyhaemoglobin in the plasma of the circulating blood of the disease.
5. It is possible, judging from the serum, that there are at least two varieties of the disease.
6. Blood plates are generally very scanty or absent in the disease, but when present are a sign of potential regeneration of red cells by the bone marrow and indicate a good temporary prognosis.
7. The abnormal conditions of the red corpuscles suggest the possibility of pernicious anaemia being a malignant disease of the blood. [J. B. H.]

Some Aspects of Cardiac Disease.

Hay, John (*British Medical Journal*, July 22, 1922), discussing cardiac disease, summarizes his remarks as follows:

Irregular action of the heart is not merely a matter of degree. The types differ fundamentally and their significance varies widely.

The most important group is that of fibrillation of the auricle, characterized by a specific and fundamental change in the activity of the auricles, and a frequent and disorderly action of the ventricles. This increases the load of the heart and is the most common cause of cardiac failure. The recognition of this form of irregularity is not difficult, requiring only the fingers and a trained intelligence.

Fibrillation is not confined to any one particular form of cardiac lesion, but may occur at any age, and when once established tends to persist.

The digitalis group produces a remarkable slowing of the ventricular rate with consequent improvement in the patient.

Auricular fibrillation can in 50 per cent. of the cases be terminated by quinidine sulphate, but in many patients the fibrillation recurs, and the exhibition of this drug is not without danger.

[J. B. H.]

Collis, Hindhede, Ballantyne, Stockard and others (*British Medical Journal*, August 12, 1922) continue the discussion of alcohol and its relation to social problems.

Collis considers alcohol and industrial efficiency, the effect of convivial drinking and of industrial drinking. Considering the industrial and experimentary evidence in regard to the subject, although alcohol possesses a charm for removing the irritating effects of industrial fatigue it is a charm purchased at great cost to efficiency. The evidence drawn from American sources as to the beneficial effect upon industrial efficiency of prohibition when taken as a whole can hardly be controverted, even though it may be criticized piecemeal. He summaries his remarks as follows:

1. Alcohol is a drug possessing energy which the body can use, but probably not for muscular work.
2. Alcohol interferes adversely with reflex acts and neuro-muscular co-ordination. The higher the concentration in which it is consumed the more pronounced is the effect.
3. Alcoholic habits vary with industries, and where most pronounced time-keeping is most irregular.
4. Industrial accidents are increased by the consumption of alcohol even though in moderate amounts.
5. There is no evidence, either experimental or practical, that alcohol is advantageous to industrial efficiency, and much that it is harmful.
6. Prohibition in America appears to be associated with greatly improved industrial efficiency, whether measured by accident frequency, lost time, or output.

Hindhede considers alcohol restriction and mortality; Ballentyne takes it up with relation to infantile mortality.

Stockard considers the subject as a selective agent in the improvement of racial stock. [J. B. H.]

The Bacteriology of Influenza.

Gordon, McIntosh, and others (*British Medical Journal*, August 19, 1922) discuss the bacteriology of influenza. McIntosh concludes his remarks as follows:

1. The predominating micro-organism in the secretions and lesions of the late epidemic was *B. influenzae* (Pfeiffer), which could be demonstrated in from 75 to 80 per cent. of the cases.
2. Other members of the catarrh-producing group of bacteria (pneumococci, streptococci, *M. catarrhalis*, etc.) were much less frequent.
3. Serological examinations confirmed an infection by *B. influenzae*.
4. The possibility of producing, experimentally, influenza-like lesions in the respiratory tract and lungs with filtered cultures of *B. influenzae* was demonstrated.
5. No evidence was obtained in support of the view that influenza is due to a filter-passing virus.

[J. B. H.]

THE BOSTON
Medical and Surgical Journal
Established in 1828

Published by The Massachusetts Medical Society under the jurisdiction of the following-named committee:

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Subscription Terms: *$6.00 per year in advance, postage paid for the United States, $7.56 per year for all foreign countries belonging to the Postal Union.*

Material for early publication should be received not later than noon on Saturday. Orders for reprints must be sent to the printer with galley proof of paper. Upon written request, authors will be furnished free one hundred eight-page reprints, without covers, or the equivalent in pages in articles of greater length.

The Journal does not hold itself responsible for statements made by any contributor.

Communications should be addressed to The Boston Medical and Surgical Journal, 126 Massachusetts Ave., Boston, Mass.

THE AMERICAN SOCIETY OF CLINICAL PATHOLOGISTS.

The organization of "The American Society of Clinical Pathologists" was accomplished in St. Louis in May, 22 and 23, 1922. The proceedings of this first meeting, containing the discussion preliminary to organization, and the constitution and by-laws adopted, stimulate reflections upon the status of those engaged in the practice of an important and essential part of medicine, as well as the use and abuse of the pathologist by physicians and surgeons. The objects of the Society are stated to be:

> "(a) To promote the practice of scientific medicine by a wider application of clinical laboratory methods to the diagnosis of disease; (b) to stimulate original research in all branches of clinical laboratory work; (c) to establish from time to time uniform standards for the performance of various laboratory examinations; (d) to elevate the scientific and professional status of those specializing in this branch of medicine; (e) to encourage a closer coöperation between the practitioner and the clinical pathologist."

The Code of Ethics, in the by-laws, is as follows:—

> "Section 1.—The Code of Ethics of this society shall be the same as that of the American Medical Association.
>
> "Section 2.—It is deemed unethical to publish advertisements in medical journals calling attention to the merits of a particular laboratory or announcing the fees for laboratory examinations.
>
> "Section 3.—It shall be deemed unethical for a member of the society to lend his name for publication in the laboratory advertisements violating this Code of Ethics."

The discussion which preceded the creation of this society clearly indicates that the chief incentive to organize was dissatisfaction with the prevailing status and financial returns of the practice of clinical pathology.

If the practice of clinical pathology is a branch of medicine, no other branch is so thoroughly commercialized.

The discussion calls attention to the firms with offices in many cities, advertising their proficiency and their fees and rejoicing in the sponsorship of eminent professors of laboratory subjects in some of our best universities. Attention is also called to the prevailing regard on the part of "clinicians" of the clinical pathologist as a technician.

For our part, we believe that the major part of the work done in clinical pathological laboratories is technicians' work, just as it has come to be so in many of our large hospitals. Wassermann reactions, metabolism tests, quantitative urine and blood analyses, in fact any diagnostic procedure removed from the patient that may be accomplished by quantitative methods may be relegated to well-trained non-medical workers. However, the interpretation of the result as applied to the patient is made not by the house-officer, but by some one higher in the medical staff, and often by the chief of service.

In the interpretation of the laboratory procedure lies the crux of the situation. The clinical pathologist, that is, the person who delivers reports on specimens of tissue, blood, urine, feces and cerebro-spinal fluid, rises above the status of technician only when such reports involve interpretation. The diagnosis of a microscopic preparation made from tissues, the diagnosis of fluoroscopic studies of stomach or intestines, from x-ray plates of bones, and some bacteriological procedures, can only reliably be made by persons of extensive experience and wide knowledge of possibilities. These and possibly a few other laboratory procedures belong to the expert whose services should be recognized by fees and esteem as are those of any other consultant. As consultants, the pathologist, the roentgenologist and the bacteriologist should be prepared to assume, and as a matter of fact are accustomed to assuming, the responsibilities of authorizing important medical and surgical procedures for which services the patient should be as willing to pay as he is to pay for the opinions of men whose data are obtained by stethoscope, ophthalmoscope, bronchoscope, speculum or any other time-honored method.

To the laboratory man, holding a university position, the practitioner sometimes appears in the light of the middle man in commerce, for not only does the practitioner profit by the application of discoveries made in laboratories, but he also conceals from the patient the importance of expert services on the part of the pathologist enlisted for help in diagnosis. Another practitioner called in consultation expects and receives a consultant's fee, the pathologist is grudgingly conceded a small fee, in amount, in most parts of the country, determined by the charges of the commercial laboratories.

The laboratory worker has made modern medicine and surgery possible — where would surgery be without asepsis?—and like scientific men in general "He digs for others and then begs for a bit of the gold he has dug" (See Cattell, "The Organization of Scientific Men" in *The Scientific Monthly*, June, 1922).

Scientific workers as a whole are content to labor because of love for the work, since the road from discovery to financial return is a long one and not apparent or attractive. However, the pathologist who does not desire to practice is constantly being forced to turn away from his research pursuits in order to give assistance in diagnosis, and after time-consuming work often has occasion to reflect on the meagerness of his reward, in appreciation and with money, as compared to that of a clinical consultant.

The pathologist lives close to the practitioner; that he is necessary is evidenced by the free laboratory services supported by the State. The beginner in pathology quickly learns what lies ahead for him in academic or hospital work. He sees that nearly every pathologist has to do a large amount of routine in hospital or medical school, and much free work for charity patients in order to earn his salary and privilege of engaging in research. The anatomist, the physiologist, the pharmacologist, has his teaching and research. The pathologist has in addition routine and charity work. The beginner in pathology quickly realizes also that he may pursue most lines of pathological research in laboratories of medicine or surgery and for a period of years thus straddle the fence dividing laboratory from clinical career; or finally engage in practice with financial return in place of routine, while carrying on investigation. These are some of the reasons why so few able men are now entering pathological laboratories and why there are several important professorships of pathology vacant, while nearly every first-class medical school has one or more fairly important positions in pathology unfilled.

Reflections of this sort make us approve of the organization of the American Society of Clinical Pathologists and to wonder if pathologists in teaching positions would not be doing a service in promoting their subject if they, too, would combine in insisting upon the financial value of their special knowledge when applied to practice.

The increased dignity that comes with earning capacity alone would be an inducement for men to enter the field of pathology, while the possibility of earning a living in the advent of failure in academic advancement would make the decision towards pathology less venturesome.

These reflections, while based upon an analysis of the situation in pathology, lead us to no definite remedial conclusion. In France in one important medical center a movement has begun with the object of elevating the pathologist to a consultant's status in medical practice. Here in Boston for many years, it is well to remember, that at the Harvard Medical School the custom of the Department of Pathology does not permit individuals to receive fees for diagnoses. Bills are rendered by the department and all fees collected go into a fund used for defraying expenses of research and for the maintenance of a free autopsy service for the benefit of the physicians in the vicinity of Boston.

The tradition of the pathologist that it is his duty to encourage the use of scientific methods in medicine is hard to down; does it receive the encouragement it deserves?

MEETING OF THE SOUTHERN MEDICAL ASSOCIATION.

The programme for the meetings of this body in Chattanooga covering November 13, 14, 15 and 16, gives evidence of careful planning, for eighteen sections covering as many departments of medicine, surgery, hospitals, public health and medical education, have schedules of exercises.

Liberal provision has been made for the entertainment of ladies and other guests. The programme occupies eleven pages of the *Journal of the Southern Medical Association*, and with the exception of the programme of the meetings of the A. M. A. is more voluminous than any medical programme within the memory of the writer.

This is the sixteenth annual meeting of this Association, which has a membership of about seven thousand. The success of these meetings illustrates the advantages of bringing States into closer relations for the interchange of opinions and consideration of problems of common interest.

Our New England States could advantageously unite in meetings patterned after those arranged by the Southern Medical Association.

News Notes.

BOSTON CITY HOSPITAL.—A staff clinical meeting was held in the Cheever Surgical Amphitheatre Friday, November 17, at 8 P.M. The following subjects were discussed: Presentation of current explanations of the mechanism involved in the production of Tremor; interpretation, and significance: Henry Viets. Mechanism of production and functional interpretation of Convulsions: Harry C. Solomon. Physiological mechanism and theories explaining the paresthesias (numbness, burning, tingling sensations); Abraham Myerson.

SPRINGFIELD ACADEMY OF MEDICINE.—The November meeting of the Springfield Academy of Medicine was held at 137½ State Street, Tuesday, November 14, 1922, at 8:30 P.M. Dr. J. P. Hoguet of New York City read the paper of the evening, entitled "Hernia." Dr. Hoguet is Associate Professor of Surgery at Cornell Medical School, New York; attending surgeon at the French Hospital, New York City; and attending surgeon at the Ruptured and Cripple Hospital, New York City.

A MISSTATEMENT WAS MADE in the editorial headed "The College of Surgeons—and Boston," which appeared in the JOURNAL Nov. 2nd, 1922. Dr. Henry J. Bigelow was mentioned as the man who created Mt. Auburn Cemetery. This is not correct. Dr. Jacob Bigelow, his father, founded Mt. Auburn, "and also drew the plans for the three principal architectural structures there—the Gate, the Tower and the Chapel, which latter is now the Crematory." The writer regrets the mistake. The general fact, however, of the relationship of well-known Boston surgeons to matters of importance in Massachusetts, not always entirely medical, remains not only true, but confirmed and even extended by this correction, to architectural adornments of Mt. Auburn, as well as to its foundations of earth and granite.

[J. B. B.]

DEATH RATE IN BOSTON.—During the week ending Nov. 11, 1922, the number of deaths reported was 221, against 182 last year, with a rate of 15.09. There were 32 deaths under one year of age, against 24 yast year. The number of cases of principal reportable diseases were: Diphtheria, 64; Scarlet Fever, 36; Measles, 56; Whooping Cough, 60; Typhoid Fever, 2; Tuberculosis, 34. Included in the above, were the following cases of non-residents: Diphtheria, 7; Scarlet Fever, 7; Whooping Cough, 1; Tuberculosis 8. Total deaths from these diseases were: Diphtheria, 4; Scarlet Fever, 1; Whooping Cough, 1; Tuberculosis 11. Included in the above, were the following cases of non-residents: Scarlet Fever, 1; Tuberculosis, 1.

THE WORCESTER DISTRICT MEDICAL SOCIETY.

The annual open meeting of the Worcester District Medical Society was held in Horticultural Hall, Worcester, Nov. 8, 1922, at 8:15 P.M. The meeting was called to order by President Dr. George E. Emery, who in turn turned it over to Dr. Kendall Emerson, the chairman of the Worcester Committee for the control of cancer, to preside. In introducing the speakers Dr. Emerson said that during the last few years the practice of medicine had enjoyed a revolutionary change, and that today the medical profession is seeking the confidence of the public. The real purpose of the doctors of today is the prevention of disease, and they have interested the public in many of the great problems of the prevention of disease, such as the anti-tuberculosis campaign, and now they are seeking to interest the public in the control of cancer.

Dr. Ernest L. Hunt was then introduced and gave a short talk on the cancer problem as it concerned Worcester. He said that cancer was a disease of middle life and carried off the adult at a time of life when he should be at the height of his efficiency.

Worcester lost by death from cancer during the year of 1921, 212 people. During this year the Worcester City Hospital has admitted to its wards 128 cases of cancer, of which number 70 were too far advanced to give any hope from treatment. Worcester is well equipped to cope with the situation if the patients will consult physicians early enough.

Dr. Frederick L. Hoffman (LL.D.), Director of the American Society for the Control of Cancer, and Consulting Statistician for the Prudential Life Insurance Company of America, gave the principal address of the evening. He said that during the time that he had been interested in the control of cancer he had seen the mortality from the disease rise steadily from 75,000 yearly in the U. S. to 90,000, and soon it would be 100,000 per year. Cancer is the only disease whose mortality is still growing. This is the story the world over. However, the liability to cancer is increasing faster than the death rate, and if it were possible to ascertain the number of cancer cases throughout the country and the number of successful operations and the number of lives saved, the evidence would most conclusively support the conviction that cancer control was being realized. Cancer is most common among the well to do and frequently among those who have never been sick a day in their lives. It is very rare among the Indians and among the

Chinese. The cause of cancer seems to lie in our modern way of living. Excess in weight is a more serious body abnormality than underweight. The disease is not contagious. No nurse has ever been known to contract the disease from her patient. Cancer can not be prevented, but death from cancer can be prevented.

After the lecture by Dr. Hoffman the two-reel film of the State Board of Health was shown, entitled "The Reward of Courage."

About 400 people attended the meeting, and the morning *Telegram* gave a column on the front page to the publicity end.

The Staff of the Worcester City Hospital has voted to form, at the request of the Surgeon General, a Reserve Hospital Unit, and have elected Dr. Frank George as commanding officer. The personnel of the Unit will be made up of members of the Staff of the Hospital and other physicians from the county.

THE HARVARD MEDICAL SOCIETY.

The first meeting of the Harvard Medical Society for 1922-1923 was held Tuesday evening, November 7, at the Peter Bent Brigham Hospital, Dr. Cushing presiding.

Dr. H. F. Newton presented a case of echinococcus cyst of the liver which had been operated upon by Dr. David Cheever. The striking feature of the case was that the enlarged cystic liver found at operation was considered by the staff, previous to operation, an enlarged spleen.

Dr. F. C. Shattuck remarked in discussion that an enlarged left lobe of the liver may be readily mistaken for an enlarged spleen, and that the diagnosis of echinococcus disease is often difficult.

Dr. S. B. Wolbach outlined the pathology of echinococcus disease and demonstrated the microscopic appearances of the characteristic daughter cysts with their hooklets.

Dr. John Donley of Providence gave a paper illustrating the reactionary point of view of John Riolan in regard to Harvey's discovery of the circulation and showed that even in the year 1650 it was impossible for a conservative clinician to check the progress of medical science in the hands of men with an experimental viewpoint.

In discussing this paper Dr. F. C. Shattuck wondered what the generation three hundred years from now would think of ourselves and wondered how many of us will be considered the Riolans of our own time and how many the Harveys.

Dr. Henry Richardson of New York reported his studies on metabolism which he has been recently conducting at the Russell Sage Institute. He demonstrated clearly how different the food actually oxidized is from that ingested and offered the hope that in future more stress would be laid upon the food burned than upon the food eaten in the treatment of those cases of metabolism in which dietotherapy is of the greatest importance.

Dr. Richardson's paper was discussed by Dr. E. P. Joslin, who was appreciative of the significance of Dr. Richardson's experiments and the way in which they had been planned.

HARVARD MEDICAL SCHOOL APPOINTMENTS.

At a meeting of the President and Fellows of Harvard College in Boston, October 30, 1922, it was voted to make the following appointments for one year from September 1, 1922:

James Percy Baumberger, Teaching Fellow in Physiology; Thomas Jefferson Duffield, Instructor in Vital Statistics.

Anatomy—Harold Valmore Hyde, Assistant; Carl Edward Johnson, Assistant.

Bacteriology—Walter Wendell Fray, Austin Teaching Fellow; Francis Browne Grinnell, Assistant; Harry Weiss, Assistant.

Biological Chemistry—M. R. Everett, Teaching Fellow.

Medicine—William Bradley Breed, Assistant; Henry Jackson, Jr., Assistant.

Orthopedic Surgery—Robert Bayley Osgood, Professor.

Pathology—Trevor Goff Browne, Assistant; Robert Joseph Kirkwood, Assistant; Monroe Jacob Schlesinger, Assistant; Michael Joseph Conroy, Instructor.

Pediatrics—Edwin Theodore Wyman, Instructor; Bronson Crothers, Assistant; Robert Dudley Curtis, Assistant; Robert Ogden Dubois, Assistant; Paul Waldo Emerson, Assistant; Martin Joseph English, Assistant; Hyman Green, Assistant; Francis Browne Grinnell, Assistant; Arthur Bates Lyon, Assistant; Arthur Roland Newsom, Assistant.

Preventive Medicine and Epidemiology—Harold Everett Smiley, Charles Follen Folsom Teaching Fellow.

Surgery—William Justus Merle Scott, Arthur Tracy Cabot Fellow.

INSTRUCTIVE DISTRICT NURSING ASSOCIATION.

BABY HYGIENE ASSOCIATION.

A marked increase in the prevalence of the respiratory diseases has made October the heaviest month since May—2,567 new patients were admitted—an increase of 10% over those of the same period last year—and 25,765 visits made. By the prevalence of these diseases October shows the same peculiarity that marked the entire summer and fall.

There were 81 new cases of pneumonia; 112 of bronchitis; 16 of grip and 67 of other respiratory diseases, making more than twice as many as at this time a year ago.

Typhoid fever dropped to only 1 new case. All the other communicable diseases showed an increase: 45 new cases of measles; 34 of whooping cough; 11 of chicken pox and mumps; 2 new cases of infantile paralysis of recent onset.

In contrast to the increase in the other diseases was a striking drop in cancer and diseases of the heart.

The service at the time of delivery reached the highest figure in its history.

During the month of October 576 new babies came to the Baby Hygiene conference, and of these 336 were under three months of age. The total conference attendance for the month was 5,457.

As the winter with its stormy days comes on, the conference attendance will necessarily be less, but the visits in the homes for individual instruction to the mothers of 9,464 babies goes on continuously at the rate of about 10,400 per month.

Miscellany.

THE SUPPRESSION OF NEEDLESS NOISE.

The Commissioner of Health of Chicago has entered upon a campaign to eliminate unnecessary noise in Chicago, under authority conferred in Section 1425 of the Sanitary Code, which reads as follows:

"(Matters and Things Detrimental to Health)—No building, vehicle, structure, receptacle or thing used or to be used for any purpose whatever shall be made, used, kept, maintained or operated in the city, if the use, keeping, maintaining or operating of such building, vehicle, structure, receptacle or thing shall be the occasion of any nuisance, or detrimental to health."

It is claimed that careless truck and automobile drivers are the worst offenders.

PERTUSSIS VACCINE.

The Department of Health, City of New York, has appointed a committee to consider the value of whooping-cough vaccine. The committee has decided that a definite announcement of the preventive value of the vaccine should be deferred until results of the study which has been inaugurated by the Bureau of Laboratories shall have been tabulated. A preliminary statement relating to the therapeutic value of the vaccine has been published in the Bulletin for Nov. 11—and is as follows:

"As to the therapeutic value of pertussis vaccine, it is the judgment of the Committee that it seems to be a symptomatic remedy which has appeared to have some value in abating the severity and frequency of the paroxysms. Whether the good results attributed to whooping-cough vaccine are due to a non-specific protein reaction is a question which cannot be answered at this time. In all events, the favorable judgment of the value of whooping-cough vaccine in symptomatic treatment of whooping-cough, which has been recorded by a number of clinicians of good standing, warrants us to encourage the continued trial of whooping-cough vaccine in the treatment of pertussis, especially since the treatment is harmless.

"The Committee is unanimous in its recommendations that whooping-cough, in view of its serious complications and sequelae, and its high mortality rate, should be regarded as a major communicable disease, and that parents and physicians should be instructed and urged to recognize that strict quarantine is as essential in this disease as in the other major communicable diseases. Whenever the maintenance of strict quarantine is not possible, a patient suffering from this disease should be sent at once to one of the hospitals of the Department of Health, so as to remove a source of infection that may be responsible for the spread of the disease.

"J. J. Blumenthal, M.D., Act. Director, Bureau of Child Hygiene.
"Robert J. Wilson, M.D., Director, Bureau of Hospitals.
"L. H. Harris, M.D., Director, Bureau of Preventable Diseases.
"Wm. H. Park, M.D., Director, Bureau of Laboratories.

Committee."

AMERICAN RELIEF ADMINISTRATION.

Moscow.—Dr. John E. Toole, Branford, Conn., district physician of the American Relief Administration at Saratov, pays a high tribute to the Russian doctors of that region, who until the arrival of American medical supplies waged a hopeless war against disease under almost unbelievably hard conditions.

"Medical personnel," says Dr. Toole in his latest report, "is usually intelligent and enthusiastic. They have borne up under unimaginable difficulties. Without anaesthetics, ligature material and clean dressing material, they have performed major operations with excellent results considering the difficulties. They have been without the most essential drugs many times and have reverted to various herbs of recognized therapeutic value. They have been at times half starved themselves, and there are few doctors who have not had the three varieties of typhus. Practically all of the doctor-inspectors whom I sent into malaria districts have contracted malaria. Many physicians died during the typhus epidemic last spring, but they are heroic and must be deemed a saving feature of demoralized Russia. Their number seems adequate and the distribution has been more equalized during the past few months, and districts where there was no doctor last spring are now supplied with one.

"The poverty and inability of patients to pay for physicians' services has made the finances of the Russian doctors especially precarious and the majority of them are living in extreme poverty."

Three medical specialists not far from Moscow city, who wish to carry on the duties of their professions unhampered by the worry of where the next meal is coming from for their families this winter, have petitioned the American Relief Administration to extend them credit for one year for food packages provided them monthly.

Too proud to ask for charity and yet anxious, apparently, to conduct their work without the burden of worry, they have made a business proposition to the A. R. A. in which they offer to pay at the end of the year the cost and expenses of forwarding American food packages. They stipulate that if at the end of the year unforeseen circumstances prevent payment they will ask for an extension of another year in which to make good.

To prove their standing and guarantee the debt, they describe in detail the property they own and the members of their family. One is an authority on pediatrics, another head of an eye disease hospital, and a third a director of a children's home. One has a wife and two daughters and a son. Another has a wife and three small sons, while the third has a wife, son and two daughters.

◆

THE LIABILITY OF PHYSICIANS UNDER THE NEW YORK SANITARY CODE.

The New York City Sanitary Code has the following section:

> Section 100. Acts tending to promote spread of disease prohibited.—No person shall by any exposure of any individual sick of any infectious disease, or of the body of such person, or by any negligent act connected therewith, or in respect of the care or custody thereof, or by a needless exposure of himself, cause, contribute to, or promote, the spread of disease from any such person, or from any dead body. (S. C. Sec. 143.)

Under this provision the Health Department of the City of New York has brought action against a physician because he directed a mother to take her child to the office of the Department of Health after a diagnosis of diphtheria had been made.

The doctor sent the following note with the mother:

> "Baby S. has a positive culture, surely laryngeal. Mother of baby does not believe. Kindly inject."

The *Bulletin* publishes the following comment:

> In the course of the child's travels through the streets and in public conveyances, to the Department, and within the office building of the latter as well, a number of children were obviously imperiled by contact with this diphtheria patient. It would seem that a physician who has received instruction as to the mode of transmission of communicable diseases, would have seen at once that the action which this mother was counselled to take constituted a grave source of danger to others, and was in conflict with elementary medical teachings. He certainly showed a serious lack of judgment.

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DIPHTHERIA AND THE SCHICK TEST IN INDIANA UNIVERSITY.

Bloomington, Ind., October.—Modern medical science works wonders. The recently discovered Schick test is largely responsible for the stamping out within 19 days of a serious epidemic of diphtheria among 2900 students attending Indiana University. The test consisted of a hypodermic injection in the arm of a minute quantity of diphtheria toxin, which determined by the resulting color of the skin the immunity or susceptibility to diphtheria of the subject. More than 1100 tests were given and the majority of the 490 students showing susceptibility took the preventative antitoxin. Vigorous quarantine of students exposed to the disease until they could be examined, together with prompt isolation of cases for treatment in the university's private hospital, contributed to the early wiping out of the epidemic. Among the 85 cases not a single serious illness developed. No ill effects resulted from the use of the antitoxin.

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U. S. DEPARTMENT OF LABOR. CHILDREN'S BUREAU.

A comprehensive directory of 861 local child health agencies in the United States has just been issued by the U. S. Department of Labor through the Children's Bureau. These agencies are actively engaged in the promotion of child health through maternity care, infant care, and the care of the child of preschool age. They serve States, counties, and urban areas of 10,000 or more inhabitants. The material was obtained by means of a questionnaire which called for the name of the organization, the address, the name of the executive, the number of paid and volunteer workers, and the scope of the work.

For convenience in consultation, the directory includes a list of agencies arranged by State and city; an alphabetical list by States, of agencies serving State-wide, county, and urban areas; and a classification of agencies according to whether they provide maternity care, infant care, and the care of children of preschool age.

"THINK I'M STRONG ENOUGH TO WORK, DOCTOR?"

Forty-three thousand boys and girls ask this question each year. The law *requires* every child between 14 and 16 years of age who goes to work to have a thorough physical examination. Yet how often a child physically unfit for work, is admitted to industry! The Massachusetts Department of Public Health, with the assistance of the Massachusetts Child Labor Committee, published an answer to the youngster's question. The pamphlet, "That Depends," is a plea for more careful consideration of children going into industry—a plea for health certification backed by thorough medical examination. As the familiar saying goes "an ounce of prevention is worth a pound of cure," the pamphlet suggests a short cut to prevention—or at least a straight road. It is distributed free by the Health Department to anyone in this State.

SMALLPOX IN NEW YORK STATE.

There have been about one hundred and fifty cases of smallpox in New York State outside of the City of New York this year.

Two recent outbreaks, one in the western part of the State and the other on the St. Regis Reservation, have caused anxiety on the part of the Public Health Department.

Efforts are being made to induce the people to seek protection through vaccination. Physicians and local health officers have been appealed to to coöperate.

CONNECTICUT HEALTH STATE COMMISSIONER.

THE Hartford *Times* announces the retirement of Dr. John T. Black, State Health Commissioner, who will associate himself with the Aetna Life Insurance Company.

The Governor has appointed Dr. Stanley H. Osborn as Commissioner of Health. Dr. Osborn has been epidemiologist in the Connecticut Bureau of Preventable Diseases since 1920. He is a graduate of Tufts Medical College and the Harvard Graduate School of Medicine. He served overseas during the War.

Dr. Black was appointed Health Commissioner July 1, 1917. He has endorsed Dr. Osborn for the position made vacant by his resignation. Under Dr. Black the health conditions in Connecticut have steadily improved.

RÉSUMÉ OF COMMUNICABLE DISEASES.

OCTOBER, 1922.

GENERAL PREVALENCE.

Diseases showing a marked increase over the previous month are as follows: chicken pox, diphtheria, measles, mumps, lobar pneumonia, scarlet fever.

The more prevalent diseases were reported as follows:

	October 1922	September 1922	October 1921
Chicken pox.......	199	53	248
Diphtheria.........	1026	578	887
Measles...........	686	269	312
Mumps............	190	67	139
Pneumonia, lobar..	237	86	191
Scarlet fever......	554	281	431
Whooping cough...	634	637	156
Gonorrhea.........	480	493	434
Syphilis...........	137	179	170

RARE DISEASES.

Anterior poliomyelitis was reported from Barnstable, 1; Boston, 6; Braintree, 1; Brookline, 1; Chilmark, 1; Dennis, 3; Everett, 1; Fairhaven, 1; Falmouth, 1; Grafton, 1; Lynn, 1; Malden, 1; New Bedford, 1; Randolph, 1; Rockport, 2; Saugus, 1; Wakefield, 1; Webster, 1; Weymouth, 1; Winchendon, 1; Worcester, 1; total, 29. (There were 63 cases reported last month and 27 for the corresponding month last year.)

Dog-bite requiring anti-rabic treatment was reported from Beverly, 1; Boston, 3; Great Barrington, 3; Lowell, 3; Medford, 3; Stockbridge, 3; Tewksbury (State Infirmary), 1; Winthrop, 1; total 18.

Dysentery was reported from Boston, 1.

Encephalitis lethargica was reported from Gloucester, 1; Lawrence 1; Longmeadow, 1; Lynn, 2; Newburyport, 1; Newton, 1; Waltham, 1; total, 8.

Epidemic cerebrospinal meningitis was reported from Fall River, 2; Lawrence, 1; Mansfield, 1; Newton, 1; Somerville, 1; Worcester, 1; total, 7.

Hookworm was reported from Boston, 2.

Malaria was reported from Boston, 3; New Bedford, 1; Pittsfield, 1; Uxbridge, 1, total, 6.

Pellagra was reported from Boston, 1; Fall River, 1; Wellesley, 1; total, 3.

Septic sore throat was reported from Andover, 1; Boston, 2; Harwich, 7; New Bedford, 2; total, 12.

Tetanus was reported from Boston, 4; Dartmouth, 1; Lowell, 1; Milford, 1; total, 7.

Trachoma was reported from Belmont, 1; Boston, 1; Lawrence, 1; Newton, 1; Medway, 1; Woburn, 1; total, 6.

Trichinosis was reported from Boston, 3; Brookline, 1; total, 4.

IMPORTANT ANNOUNCEMENT.

The medical profession will be interested in the announcement that the Abbott Laboratories of Chicago have purchased the Dermatological Research Laboratories of Philadelphia. This is an advance step for the Abbott Laboratories, and will give them deserved recognition among the leading manufacturers of medicinal products.

It will be remembered that the Dermatological Research Laboratories were the first in the United States to produce Arsphenamine during the war, where there was such a scarcity of this article; and these Laboratories became well known to the medical profession for their patriotic attitude in developing and manufacturing medicinal preparations in this country. By this purchase of the "DRI" products, the Abbott Laboratories inherited their prestige.

The Abbott Laboratories acquired control of the Dermatological Research Laboratories on November 1st, and are continuing to operate them in Philadelphia under the direction of Dr. Geo. W. Raiziss, head of the Department of Chemistry, and his corps of specially trained assistants. Orders for "DRI" products will be promptly filled from the Philadelphia Laboratories or from their branches or distributors.

THE NEW HOME OF HYNSON, WESTCOTT & DUNNING OF BALTIMORE.

This national drug firm has just erected and occupied its own building at Charles and Chase Streets, Baltimore. The building is artistic in appearance and adapted to accommodate the several departments of their rapidly developing business, which began in a small way in 1889, but has now grown to a million a year, with an organization of 125 people. Their unique sales department alone comprises 19 men, who visit physicians in all parts of the United States, but do not sell goods. Thirty-five of their products have been accepted by the Council. None of their preparations are offered direct to the public, but are introduced to the medical profession for the use of physicians and their patients. Mr. H. P. Hynson, one of the founders, died in 1921, but their growing business has now been established in new quarters under the immediate supervision of Messrs. James W. Westcott and H. A. B. Dunning (the latter being the active administrator), with a highly trained force, equipped to meet promptly the demands of the medical profession anywhere and at all times.

Obituaries.

WALTER BREWSTER PLATT, M.D.

Walter B. Platt, hospital superintendent and pediatrist, was born at Waterbury, Connecticut, Dec. 20, 1853, and died of heart disease at his home in Baltimore Oct. 30, 1922. He was the son of Gideon Lucien and Caroline (Tudor) Platt. His father, a physician and surgeon, and president of the Connecticut State Medical Society, was a man of great energy, rectitude, self-control and kindness. Richard Platt, the founder of the Platt family, came from Hertfordshire, England, in 1638, and settled in Milford, Connecticut. Other ancestors of note were: Thomas Buckingham, who emigrated from England in 1638, to New Haven, Connecticut; Owen Tudor, who went to Massachusetts from Wales between 1620 and 1636; Deacon William Gaylord, who emigrated from England in 1630; Joseph Loomis, who came from England in 1638; Elder William Brewster (pastor of the Pilgrims on the *Mayflower*), in 1620; Doctor Elihu Tudor, surgeon (1733-1826), who was with General Wolfe of the British army at the capture of Quebec and Havana.

When Platt was a boy, he lived in a small town, where, he said, "among other duties I was made to take entire care of a horse for a time," a discipline which he thought most valuable. He early showed a love for chemistry, zoölogy and botany, and in reading found most helpful works in natural science, such as those of Huxley, Herbert Spencer, and Sir John Lubbock. Platt received his early education in the public schools and at Williston Seminary, Easthampton, Massachusetts. He then entered Yale University, and received the degree of Ph.D. in 1874. From that date until 1879 he studied at the Harvard Medical School, graduating with the degree of M.D. in the latter year. Then he pursued post-graduate courses in medicine at the Universities of Berlin, Vienna and Heidelberg and obtained membership in the Royal College of Surgeons of England, being made a fellow of that college, by examination, in 1883.

In the year 1872 Dr. Platt was collector of specimens of natural history in the Yellowstone expedition of the United States Geological Survey. In 1878 he was both house surgeon and assistant to the superintendent at the Boston City Hospital. From 1884 to 1889 he was surgeon to the Bay View Asylum, Baltimore, and during the same years was demonstrator of surgery at the University of Maryland. First appointed in 1886, he was superintendent and surgeon of the Robert Garrett Hospital for Children. In 1884 he published a translation with notes, of Ultzman's "Pyuria." Among his memberships were the Delta Psi Fraternity, the University Club, the Reform League, the Civil Service Reform Club, the American Economic Association, the American Association for the Advancement of Science, the National Economic League. Of the numerous professional societies were the American Medical Association and the Medical and Chirurgical Faculty of Maryland. For many years he was a member of the council and honorary surgeon to the Society of Colonial Wars. In politics Dr. Platt was identified with the Republican party, though he twice voted for Cleveland. He was a vestryman in St. John's Episcopal Church, Kingsville, an office he held from 1903. For exercise and recreation he turned to camping, riding, rowing and traveling by sea to tropical countries. He said "I am a strong believer in moderate indulgence in athletic exercises, but opposed to violent competitive games. I think their influence is not physically good on those who take part in them."

On December 4, 1889, Dr. Platt married Mary P. Perine of Baltimore, daughter of the late Glenn Perine and niece of Mrs. H. Irvine Keyser. They had four children: Washington, David, Mary (now Mrs. C. C. Hall), and Lucien, who died from influenza while in the Engineers' Training Camp during the World War.

Dr. Platt was a man of most upright character, greatly respected by a large group of friends and greatly beloved by a long list of devoted patients. To the management of the Robert Garrett Hospital, through the many years of his service, he gave his time and thought without stint, and the great success of the work of this institution has been due in very large measure to his good judgment and continued interest. Once when asked to express his advice to a young man beginning his career he offered this suggestion: "associate early with men of high ideals and successful achievement. Take regular, moderate physical exercise. Get your education at the best schools and universities. Concentrate professional energy. Keep up general culture through life. Resolve to entertain no ideals or beliefs except such as are sound and ultimately useful to mankind."

[H. B. J.]

BIBLIOGRAPHY.

Notes from "Men of Mark in Maryland," by B. F. Johnson, Inc., Baltimore, Washington and Richmond, 1910. Vol. ii (2), pp. 292.

Cordell's "History of The Medical and Chirurgical Faculty of Maryland."

Genealogies of The Society of Colonial Wars in the State of Maryland.

GEORGE PRENTISS MORGAN.

Word has been received of the death, November 8, 1922, at Dover, New Hampshire, of Dr. George P. Morgan of that city, at the age of 61.

He was born at New Gloucester, Maine, June 22, 1861, graduated in the medical class of 1888 at Bowdoin College, and settled in Dover the following year. In 1892 he joined the New Hampshire Medical Society, and he also had membership in the Maine Medical Association and the American Medical Association. Much of his practice was in the domain of surgery, he being surgeon-in-chief to the Wentworth Hospital.

Correspondence.

IN RE ZONITE AD., CANCER WEEK AND N. H. CHIROPRACTIC.

November 9, 1922.

Mr. Editor:

(1) A fine editorial, but unless active measures are taken, only pop-gun work; chiropractic ditto.

(2) Two powerful causes for the mortality—Christian (?) Science (?) and Lydia Pinkham—the former used by fanatics; the latter by the ignorant and gullible — backed by the Boston *Herald* and a thousand other participes criminorum. Three deaths (two of brides) from latter, and one from former cause (turn these numbers right around, please) recently in my own work—one, a refined and rich woman who presented a case so horrible its details would make you shudder: ten hours after being called out of town "only to make a diagnosis," death ensued.

This morning's mail brings me a letter from Dr. W. A. Evans (*Chicago Tribune-Boston Herald*) corroborating my own experiences!

Fraternally,
James Brown Thornton.

THE SCHICK TEST IN NEWTON.

November 8, 1922.

Mr. Editor;

Eighteen months have elapsed since the Newton Board of Health offered the Schick test and T. A. immunization of susceptibles to the children in the public schools and such others as might desire it, and it may not be out of place to publish our results.

During April, May and June, 1921, 1000 persons were tested and subsequently 200 more were done, making a total of 1200 persons, all but 50 being under 16 years of age, on our lists.

Of this number 258 were found to be naturally immune and 50 others were immunized and later shown, by test, to have acquired immunity, so that we have on our lists 308 persons who are immune and 892 known to be susceptible, but who have neglected or refused to be immunized.

These two groups have been under observation for a period of 16 months, and during that time each case of diphtheria, as reported, has been checked against our lists with the result that none of the 308 immunes have developed diphtheria, while of the 892 susceptibles, 10 have been reported as having diphtheria, not only bacteriological but clinical.

Our number of immunes is as yet too small to have had any effect in reducing the number of cases of diphtheria reported, but we believe that we have shown that persons showing a negative Schick, whether due to natural or artificial immunity, are protected from diphtheria and we intend to continue our work in the hope of being able to show at some future period, that we have increased our immune population and so reduced our cases of diphtheria.

FRANCIS GEO. CURTIS, M.D.
Chairman, Newton Board of Health.

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THE FIRST MEDICAL COLLEGE HOSPITAL IN THE UNITED STATES.

Mr. Editor:

In your issue for October 26th, 1922, page 600, I notice that Dr. Thomas S. Brown mentions the fact that in 1893 the University of Pennsylvania and the Johns Hopkins Hospital had their own hospitals, which were utilized for the education of medical students. The inference was that no other medical school had its own hospital.

Evidently, the writer is not aware of the fact that the Jefferson College Hospital was opened on September 17th, 1877—sixteen years earlier than the date which is given above. Moreover, as long ago as 1860, when I entered the Jefferson as a student, we had a small hospital of ten or twelve beds in two rooms, one for men and one for women and children.

The writer raises also the question of any harm arising to patients from ward classes.

I venture to make the following extracts from my address as President of the Sixth Congress of American Physicians and Surgeons, held in Washington on May 12th, 1903:—

"I have lived through the period of the establishment of hospitals in many of the smaller cities and towns, and in some cases even villages in this country, for it was a rare thing in my early professional life for any except the larger cities to have hospitals. The moment that a hospital is established with its medical and surgical staff, that moment a new era has dawned on the *community* in which the hospital is established. More careful methods are introduced, greater cleanliness is observed, hygienic conditions are bettered, laboratory methods are inevitably introduced in time . . . It is sometimes objected by those who are not familiar with the actual facts that this method of actual bedside instruction does harm to the sick. I speak after an experience of nearly forty years as a surgeon to a half dozen hospitals and can confidently say that I have never known a *single patient* injured or his chances of recovery lessened by such teaching. . . . Who will be the least slovenly and careless in his duties: he who prescribes in the solitude of the sick chamber, and operates with two or three assistants only, or he whose every movement is eagerly watched by hundreds of eyes, alert to detect every false step, the omission of an important clinical or laboratory investigation, the neglect of the careful examination of the back as well as the front of the chest, the failure to detect any important physical sign or symptom? Who will be most certain to keep up with the progress of medical science: he who works alone with no one to discover his ignorance, or he who is surrounded by a lot of bright young fellows who have read the last *Lancet* or the newest *Annals of Surgery* and can trip him up if he is not abreast of the times? I always feel at the Jefferson as if I were on the run with a pack of lively dogs at my heels. I cannot afford to have the youngsters familiar with operations, means of investigations, or newer methods of treatment of which I am ignorant. I must perforce study, read, catalogue, and remember, or give place to others who will. Students are the best whip and spur I know."

Yours very truly,

W. W. KEEN.

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DISEASES REPORTED TO MASSACHUSETTS DEPARTMENT OF PUBLIC HEALTH.

WEEK ENDING NOVEMBER 11, 1922.

Disease.	*No. of Cases.*	*Disease.*	*No. of Cases.*
Anterior poliomyelitis	6	Pneumonia, lobar	62
Chicken-pox	75	Scarlet fever	120
Diphtheria	256	Syphilis	52
Encephalitis lethargica	2	Suppurative conjunctivitis	9
Epidemic cerebrospinal meningitis	3	Tetanus	1
German measles	3	Trachoma	1
Gonorrhea	109	Tuberculosis, pulmonary	85
Influenza	14	Tuberculosis, other forms	7
Measles	168	Typhoid	17
Mumps	70	Whooping cough	228
Ophthalmia neonatorum	15		

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BOSTON ASSOCIATION OF CARDIAC CLINICS.

SCHEDULE OF MEETINGS.

The first meeting was held Nov. 16 at the Massachusetts General Hospital. The subject discussed was "Syphilis of Heart and Aorta," by Dr. Walter P. Anderton, Presbyterian Hospital, New York City. Dr. William D. Reid, Boston Dispensary and Boston City Hospital. Discussion opened by Dr. William D. Smith, Massachusetts General Hospital.

Succeeding meetings will be held Thursday, January 18, 1923, at 8:15 P.M. Boston Lying-In Hospital (*new* Hospital). Pregnancy and Heart Disease.

Drs. William B. Breed and Paul D. White, Massachusetts General Hospital. Dr. Burton E. Hamilton, Boston City Hospital and Boston Lying-In Hospital.

Thursday, March 15, 1923, at 8:15 P.M. Boston City Hospital. Prevention and Relief of Heart Failure.

Rheumatism and Chorea and Heart Disease. Congenital Heart Disease. Thursday, May 17, 1923, at 8:15 P.M. Children's Hospital.

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PACIFIC NORTHWEST MEDICAL ASSOCIATION.

The September issue of Northwest Medicine contains the minutes of the first scientific session of the Pacific Northwest Medical Association, held in Spokane, Washington, July 6 to 8, 1922. Among the papers read and published in this issue are three by Dr. Henry A. Christian of Boston: "Certain Phases of the Chronic Nephritis Problem," "Hemolytic Jaundice, Pernicious Anemia, Alkaptonuria, and Orthostatic Albuminuria," and "Digitalis and Quinidine in the Treatment of Certain Types of Chronic Cardiac Disease."

Dr. W. B. Cannon, of Boston, spoke on "New Evidence Regarding the Nervous Control of the Thyroid Gland."

PUBLIC HEALTH LECTURERS FOR THE YEAR 1922.

The Committee on Public Health of the Massachusetts Medical Society has been able during the past three years to arrange with well known specialists in various medical fields to give talks at meetings of the District Medical Societies on subjects of interest and importance to all practitioners. It is a pleasure to announce that a similar arrangement has been made this year and that the gentlemen named below are willing, without expense to the District Society, to give occasional talks of thirty to forty minutes on subjects relating to the promotion of public health, extending opportunity for questions and discussion. It is suggested that medical societies consider meeting at neighboring public institutions, since such meetings have been most successful in the past, particularly at the tuberculosis sanatoria and state hospitals for the insane.

José Penteado Bill, M.D., Doctor of Public Health. Specialty: Preventive Medicine.

Frank C. Dunbar, M.D., Bacteriologist, Instructor in Bacteriology and Pathology, Tufts College Medical School. "Methods of Technique in Collecting Specimens."

Walter E. Fernald, M.D., Superintendent, Massachusetts School for the Feeble-minded.

Timothy Leary, M.D., Professor of Pathology, Tufts College Medical School; Medical Examiner, Suffolk County.

Edwin H. Place, M.D., Physician-in-Chief, South Department, Boston City Hospital. Specialty: Contagious Diseases.

C. Morton Smith, M.D., Chief of Department of Syphilis, Massachusetts General Hospital.

George Gilbert Smith, M.D., Assistant in Department of Genito-Urinary Diseases, Massachusetts General Hospital. Specialty: Genito-Urinary Diseases.

Lesley H. Spooner, M.D., on Staff of Out-Patient Department, Massachusetts General Hospital, Specialty: Specific Diagnosis and Treatment of Pneumonia.

William C. Woodward, M.D., Ex-Health Commissioner, City of Boston.

George H. Wright, D.M.D., Lecturer on Dental Hygiene, Harvard Dental School. Specialty: Dental Surgery.

Thomas F. Kenney, M.D., Director of School Hygiene, City of Worcester. Specialty: Full time School Health Officer.

Secretaries of District Medical Societies writing to ask for these lecturers will kindly designate the topic, the place and the hour of meeting as well as the name of the desired speaker, thus eliminating unnecessary correspondence. Please address communications to the Secretary of the Committee, Annie Lee Hamilton, M.D., 164 Longwood Ave., Boston 17.

[Note: The Committee on Public Health feels that this notice may have escaped attention, for few applications have been received. Each lecturer is an authority and would present his subject in an interesting and instructive manner.]

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SOCIETY MEETINGS.

DISTRICT SOCIETIES.

A list of society meetings is herewith published. This list will be changed on information furnished by the secretaries of the societies, and will appear in each issue.

Barnstable District:—Hyannis,—February 2, 1923, (Annual Meeting)—May 4, 1923.

Bristol South District:—Fall River,—May 3, 1923.

Essex North District:—Haverhill, (Semi-Annual Meeting)—Jan. 3, 1923. Y. M. C. A. Building, Lawrence, (Annual Meeting)—May 2, 1923.

Essex South District Medical Society meets Wednesday, December 13th, at Beverly Hospital, Beverly, 6 P.M. Speakers: Dr. W. P. Bowers, Managing Editor *Boston Medical and Surgical Journal*; Dr. John D. Adams, Boston; Dr. P. P. Johnson, Beverly. R. E. Stone, Secretary.

Suffolk District:—December 27, 1922; January 31, 1923; February 28, 1923; March 28, 1923; Annual Meeting, April 25, 1923.

The Springfield Academy of Medicine meets the second Tuesday of each month. Schedule of speakers includes the following names: Dr. Alexis Carrel, Dr. W. B. Long, Dr. J. W Williams, Dr. W S. Thayer, and Dr. Barton Cooke, Hist. The date for each speaker has not been assigned.

Middlesex North District:—Meetings; Wednesday, January 31, 1923.

Middlesex East District—Jan. 24, 1923. The Nursing Problem. Speaker to be announced later.

March 21, 1923. Mental Factors in Childhood. Paper by Dr William Healy.

April 18, 1923. Interpretation of Laboratory Findings. Papers by Dr. E. G. Crabtree and one to be announced later.

May 9, 1923. Annual Meeting.

All meetings except the annual meeting will be held at the Harvard Club in Boston. A. E. Small, Secretary.

Worcester District meetings in Worcester, Dec. 13, 1922, Jan. 10, Feb. 14, March 14, April 11 and May 9, 1923, the last named date being the annual meeting.

Massachusetts Society of Examining Physicians.—Meeting and dinner at Copley-Plaza Hotel, Monday, November 27, 6:30 P.M. Symposium on "Back Disabilities." "The Diagnosis of Back Disabilities," Dr. J. W. Sever; lantern slides. "Postural Defects," Dr. Lloyd T. Brown; lantern slides. "Backache in Women with Reference to Industrial Conditions," Dr. Stephen Rushmore. "The X-Ray Standpoint," Dr. A. W. George. Discussion opened by Dr. Francis D. Donoghue. Wm. Pearce Coues, M.D., President, Hilbert F. Day, M.D., Secretary.

STATE, INTERSTATE AND NATIONAL SOCIETIES.

December, 1922. New England Dermatological Society Meeting, Wednesday, December 13, 1922, at 3.30 P. M., in the Surgical Amphitheatre, Boston City Hospital, C. Guy Lane, Secretary.

December 26-30, 1922. American Association for Advancement of Science meets in Boston.

January, 1923. Massachusetts Society of Examining Physicians, (Date and place undecided), Hilbert F. Day, Secretary. Massachusetts Association of Boards of Health, January 25, Annual Meeting, Boston, W. H Allen, Mansfield, Mass., Secretary.

January, 1923:—Boston Association of Cardiac Clinics. Meeting January 18, 1923, at 8:15 P.M. Boston Lying-In Hospital (New Hospital). Subject: Pregnancy and Heart Disease.

February, 1923. New England Dermatological Society Meeting, February 14, 1923, at 3.30 P. M., in the Skin Out-Patient Department, Massachusetts General Hospital, C. Guy Lane, Secretary.

March, 1923. Massachusetts Society of Examining Physicians, (Date and place undecided), Hilbert F. Day, Secretary.

March, 1923:—Boston Association of Cardiac Clinics. Meeting March 15, 1923, at 8:15 P.M. Boston City Hospital. Subject: Prevention and Relief of Heart Failure.

April, 1923. New England Dermatological Society Meeting, April 11, 1923, at 3.30 P. M., in the Surgical Amphitheatre, Boston City Hospital, C. Guy Lane, Secretary. Massachusetts Association of Boards of Health, April 26, 1923, Boston, W. H. Allen, Mansfield, Mass., Secretary.

May, 1923. Massachusetts Society of Examining Physicians, (Date and place undecided). American Pediatric Society Meeting, May 31, June 1 and 2, 1923, at French Lick Springs Hotel, French Lick, Ind., H. C. Carpenter, Secretary.

May, 1923:—Boston Association of Cardiac Clinics. Meeting May 17, 1923, at 8:15 P.M. Children's Hospital. Subject: Rheumatism and Chorea and Heart Disease.

June, 1923. American Medical Association, San Francisco, June 25-29, 1923, Alexander R. Craig,* Chicago, Ill., Secretary.

July, 1923. Massachusetts Association of Boards of Health, July 26, Nantasket, W. H. Allen, Mansfield, Mass., Secretary.

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*Deceased Sept. 2, 1922.